

J.J COLLEGE OF ARTS AND SCIENCE (Autonomous)

Sivapuram Post, Pudukkottai-622422

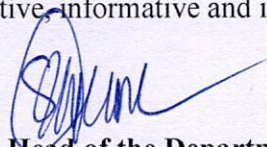
DEPARTMENT OF CHEMISTRY

3.3.2- Report of the Special Lecture Programme on "Stereochemistry"

The Resonance Club of the Department of Chemistry, J.J College of Arts and Science (Autonomous), Sivapuram, Pudukkottai conducted a special lecture programme on **14th July 2023**. **Dr.S.Britto**, Assistant Professor, PG and Department of Chemistry, St.Joseph's College (Autonomous), Trichy, brought on inspirational speech on "**Stereochemistry**".

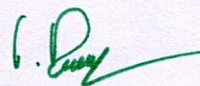
During the course of his lecture, he pointed out the Stereochemistry is the branch of chemistry that involves the study of the different spatial arrangements of atoms in molecules. The structure of a molecule can vary based on the three-dimensional arrangement of the atoms that constitute it. Stereochemistry also deals with the manipulation of the arrangement of these atoms. This branch of chemistry is commonly referred to as 3-D chemistry since it focuses on stereoisomers. He elaborated on Stereoisomerism refers to the isomerism that is caused by the non-similar arrangements of atoms or functional groups belonging to an atom in space and enantiomer is the When two isomers are mirror images of each other, the type of isomerism is called enantiomerism and these isomers are referred to as enantiomers. He pointed out Stereochemistry has applications in medicinal chemistry, materials chemistry, and supramolecular chemistry. Stereochemistry is of critical importance to drug action because the shape of a drug molecule is an important factor in determining how it interacts with the various biological molecules.

The speaker cleared all the doubts raised by using the UG and PG college students of Chemistry. Dr.C.Muthukumar, Head of the Department of Chemistry, presided over the feature, welcome the gathering Ms.S.Haritha of the II M.Sc and A.Riyaz Mohamed of II M.Sc proposed the vote of thanks. The college students were very a whole lot benefited with instructive, informative and inspirational lecture.



Head of the Department

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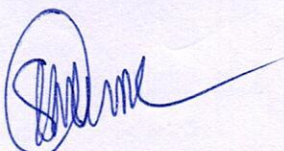
DEPARTMENT OF CHEMISTRY

3.3.2- Report of the Special Lecture Programme on “Bioelectricity generation from Waste Biomass”

The Resonance Club of the Department of Chemistry, J.J College of Arts and Science (Autonomous), Sivapuram, Pudukkottai organized a special lecture programme on **28th July 2023**. **Dr.AN. Senthilkumar**, Assistant Professor, PG and Department of Chemistry, Alagappa Government Arts College, Karaikudi, delivered an inspirational speech on **“Bioelectricity generation from Waste Biomass”**.

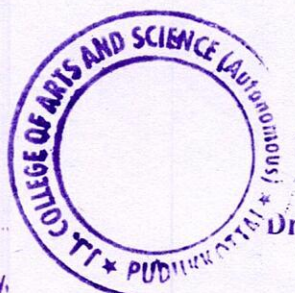
In his lecture he pointed out bioelectricity is a form of bioenergy obtained from renewable feedstock by conversion of agricultural and forest residues, food waste, municipal waste into biomass via different techniques such as direct combustion, thermochemical conversion, gasification, microbial fuel cell, etc. He stated that direct combustion is a burned in a boiler to create high-pressure steam, which rotates a turbine to generate electricity and microbial fuel cell is an Organic components in solid waste are converted into electricity by electrogenic microorganisms in an anaerobic environment. He pointed out that anaerobic digestion is Biogas is recovered from solid and liquid waste, and then converted into electricity. Bioelectricity generation can be a clean and safe way to produce electricity while also eliminating pollution. The by-products of the MFC process can be used as soil conditioner or fertilizer. The design of an electric generator is similar to the design of an electric motor. He explained benefits of the bioenergy industry that abundant and renewable bioenergy can contribute to a more secure, sustainable, and economically sound future by Supplying domestic clean energy sources, revitalizing rural economies.

The speaker cleared all the doubts raised by using the UG and PG college students of Chemistry. Dr.C.Muthukumar, Head of the Department of Chemistry, presided over the feature, welcome the gathering Ms.K.Renukadevi of the II M.Sc and A.Nishabaanu of I B.Sc proposed the vote of thanks. The college students were very a whole lot benefited with instructive, informative and inspirational lecture.



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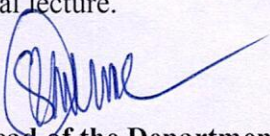
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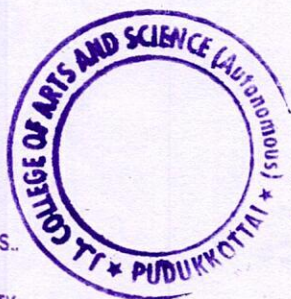
3.3.2- Special Lecture Programme on “Nanotechnology Issues and future Directions”

The Resonance Club of the Department of Chemistry, J.J College of Arts and Science (Autonomous), Sivapuram, Pudukkottai organized a special lecture programme on **12th January 2024**. **Dr.V.Renuga**, Associate Professor, PG and Department of Chemistry, National College (A), Trichy, delivered on inspirational speech on **“Nanotechnology Issues and future Directions”**. She explained the basic concepts, principle and methods for synthesis of nanoparticle and instruments available for the formation of nanoparticle. Nanotechnology has the potential to address global challenges and improve sustainability, but it also presents some issues and concerns. In safety there are concerns about the long-term safety of nanomaterials, including their potential to accumulate in organs and cause toxicity. In Research gaps nanotechnology is a relatively young technology, and there are still gaps in some research fields, such as green nanotechnology and industrial production.

She pointed out the nanotechnology has many potential applications, including In Healthcare, Wearable biosensors and biomaterials can improve health and well-being and Energy Nanotechnology can help reduce CO₂ emissions and improve energy efficiency and conversion. In Agriculture, Nano pesticides, nano insecticides, nano fertilizers, nano fungicides, and nano herbicides can help improve crop yields and address food security issues and Environmental protection Nanotechnology can help improve water purification processes and enable access to clean drinking water. She elaborated the Nanotechnology is an emerging science, which is expected to have rapid and strong future developments. It is predicted to contribute significantly to economic growth and job creation in the coming decades. The speaker cleared all the doubts raised by using the UG and PG college students of Chemistry. Dr.C.Muthukumar, Head of the Department of Chemistry, presided over the feature, welcome the gathering and V.Yogeshwari of I B.Sc proposed the vote of thanks. The college students were very a whole lot benefited with instructive, informative and inspirational lecture.


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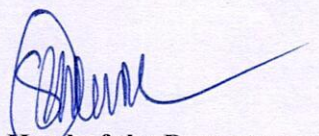
DEPARTMENT OF CHEMISTRY

3.3.2- Special Lecture Programme on “Entrepreneurial Expertise in Chemistry”

The Resonance Club of the Department of Chemistry, J.J College of Arts and Science (Autonomous), Sivapuram, Pudukkottai organized a special lecture programme on **31st January 2024**. **Dr.A.Asrar Ahamed**, Assistant Professor, PG and Department of Chemistry, Jamal Mohamed College (A), Trichy, delivered on inspirational speech on **“Entrepreneurial Expertise in Chemistry”**.

In his lecture, he explained the way to search the job related to chemistry, area of chemistry such as quality control, research and development etc. Entrepreneurial expertise in chemistry is the ability to use scientific discoveries to create new products and technologies that can be sold for a profit. Chemists have the skills and knowledge to start a successful business, including Problem-solving skills, Adaptability, Entrepreneurial mindset, Expertise in chemistry advancements, compound synthesis, and technology transfer. Chemists can use their expertise to create new jobs and industries, promote sustainability, and drive innovation and economic growth. Entrepreneurship in chemistry can help to turn scientific discoveries into practical solutions, create new jobs and industries, drive innovation and economic growth, and promote sustainability. Chemists should be self-confident in thinking about entrepreneurship because they have the knowledge, problem-solving skills, adaptability, entrepreneurial mindset, and expertise that are necessary for starting a successful business. By leveraging their unique skill set, chemists can develop innovative products and technologies that have a real impact on society.

The speaker cleared all the doubts raised by using the UG and PG college students of Chemistry. Dr.C.Muthukumar, Head of the Department of Chemistry, presided over the feature, welcome the gathering and M.Viswanathan of I B.Sc proposed the vote of thanks. The college students were very a whole lot benefited with instructive, informative and inspirational lecture.



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