On the 18th of October 2023, the Department of Chemistry organised a Nobel Prize Lecture series. The lectures were delivered by two distinguished individuals, Dr. Sabyasachi Chakrabortty, an Associate Professor, and Dr. Satheesh Ellipilli, also an Associate Professor, both from the Department of Chemistry at SRM University Amaravathi. This enlightening session attracted an audience of 128 students and was also attended by four esteemed faculty members.

The guest speaker was heartily welcomed by Dr.K.Kiran Kumar, Associate Professor, Department of Chemistry.

During the first lecture, Dr. Sabyasachi Chakrabortty delved into the fascinating realm of Quantum Dots Chemistry, particularly in the context of the Chemistry Nobel Prize in 2023. This prestigious award was bestowed upon Moungi G Bawendi, Louis E Brus, and Alexei I Ekimov for their groundbreaking research on quantum effects in the Nano world.

The lecture highlighted several key applications and implications of Quantum Dots:

Brighter Screens: Quantum Dots are instrumental in enhancing the quality of TV screens and displays. They bring about vibrant, true-to-life colors, elevating the viewing experience for your favorite shows and movies.

Solar Power Revolution: Quantum Dots play a crucial role in revolutionizing solar power technology. By improving the efficiency of solar panels, they contribute to the accessibility of clean energy.

Medical Detectives: Quantum Dots act as miniature detectives within our bodies. They can be tailored to target specific cells, aiding doctors in the early detection of diseases like cancer, which is vital for effective treatment.

The Future of Lighting: Traditional light bulbs are gradually being replaced by Quantum Dot LEDs. These energy-efficient sources of light can be customized to emit any desired color, all while consuming less power.

The lecture emphasized that Quantum Dots, with their unique ability to emit specific colors of light and their diverse applications in technology, healthcare, and more, are paving the way for a brighter and more colorful future.

During the second lecture Dr. Satheesh Ellipilli's tells about fundamental concepts and key developments related to mRNA-based vaccines. These vaccines work by introducing a small piece of synthetic mRNA into the body, which instructs cells to produce a modified form of a specific protein, often a viral protein, without causing the disease itself. The immune system recognizes this protein as foreign and generates an immune response, creating antibodies and memory cells that provide protection against the targeted disease.

It's important to note that mRNA vaccines represent a breakthrough in vaccine technology and have the potential to revolutionize the field of medicine. On-going research and development are likely to expand the range of applications for mRNA, offering new solutions for various diseases and medical conditions.

Lecture by Dr. Sabyasachi Chakrabortty ,Associate Professor SRM University, Amaravathi

Lecture by Dr. Satheesh Elipilli, Associate Professor SRM University, Amaravathi