

Department of Physics
St. Philomena's College (Autonomous), Mysuru-15

One day Lecture Workshop on “Some Special Topics in Physics”

REPORT

One day Lecture Workshop on “*Some Special Topics in Physics*” was organized in our college UG Auditorium for the Students and teachers of Undergraduate and Postgraduate departments, during 20 November, 2018. The event was co-ordinated by Prof. Shobana Thomas, UG Department of Physics.

The workshop started off with inaugural ceremony, Rev. Fr. Dr.Bernard Prakash Barnis, the Rector/Manager of the college being the chief guest. Dr. T. Ruth Shanthakumari, the Principal of our College presided over the inaugural session. Along with them Prof. Sanjay Nair, Vice Principal, Dr. D. Revannasiddaiah, Professor and Head, PG Department of Physics, Prof. G. Rajalakshmi, Head of the UG Department, Prof. Shobana Thomas, UG Department of Physics were also present.

Neel Mario and team invoked the program, Prof. Shobana Thomas welcomed the guest and gathering. After lighting the lamp our chief guest congratulated the organizers of the programme and made his wishes for the success of the program. He made a mention that such programmes are the source to absorb knowledge so the participants must make the best use out of it.

Dr. T. Ruth Shanthkumari in her presidential remark congratulated the organizers and also appreciated the good work of the Physics Department which is constantly active since years.

Our Prof. G. Rajalakshmi then addressed the gathering wherein she shared her working experience in the college, the way it had made way for her to have a successful professional life for about 3 decades. On this occasion she heart fully thanked her higher authorities and colleagues for their support and love.

The inaugural program was formally concluded by the vote of thanks delivered by Mr. Felan Amal.

After a short break for tea we headed towards the PG block for the Lecture Sessions.

Schedule of Lectures:

Lecture 1:	Special theory of Relativity	Dr. K.S. Mallesh	10:00 – 11:30 am
Lecture 2:	Physics and Techniques of Lasers	Dr. Ramakrishna Damle	11:45am – 1:15 pm
Lecture 3:	General theory of Relativity	Dr. K.S. Mallesh	1:45 – 3:15 pm
Lecture 4:	Introduction to Quantum Mechanics	Dr. T. Shivalingaswamy	3:30 – 5:00 pm

Lecture 1:

Prof. K.S. Mallesh in his talk started from the very fundamental level of understanding Special theory of Relativity so he called his presentation to be the making of Special theory of Relativity. He discussed the laws of Mechanics, Frames of References, Galilean Transformations.

Lecture 2:

Prof. Ramakrishna Damle in the very limited time beautifully presented before us the concept of Lasers, they being special because of their unique properties, the techniques of lasers, types of lasers, applications of lasers in various fields which relates to human activities.

He also spent few minutes to speak on the career opportunities for the science graduates.

Lecture 3:

Prof. K.S. Mallesh continued his talk on Special theory of Relativity and then switched to General theory of Relativity. He spoke about the non-existence of Ether medium, the Michelson-Morley experiment and its beautiful conclusion, also the astonishing twin paradox.

Lecture 4:

Prof. T. Shivalingaswamy in his talk on Introduction to Quantum Mechanics mentioned the drawbacks of Classical Mechanics, where it failed to explain adequately the microscopic nature. He then continued discussing the postulates of Quantum mechanics, Canonically conjugate Variables, potential well problem, Harmonic oscillator problem and the approximation methods in Quantum Theory.

Overall, this lecture workshop was one of the very successful such meetings. It had the participation of nearly 100 students and teachers. The participation of students/teachers during discussions was good and the quality of discussions was high. The subject matter seemed to catch the imagination of the students especially. The organisation of the workshop by St. Philomena's College was excellent as always. Such institutions need to be encouraged to conduct more meeting relation to science education.