

SVSSC GOVERNMENT DEGREE COLLEGE, SULLURPET, TIRUPATI DISTRICT

DEPARTMENT OF PHYSICS - REPORT OF THE WORKSHOP

On June 27th, 2022, the Department of Physics at SVSSC Government Degree College, Sullurpet, Tirupati District, hosted a one-day workshop in a digital classroom on the **Applications of Machine Learning to Physics**, attended by 80 students and 12 faculty members.

Objectives of Workshop

- Bringing together computer scientists, mathematicians, and physicists who are interested in applying machine learning applications to a wide range of outstanding physics problems.
- To understand and improve machine learning techniques, we must show cutting-edge progress in applying machine learning techniques to real-world physics problems.

Dr. S.L.B. Sankara Sarma, the college's principal, welcomed the staff and resource people, emphasising the importance of focusing on the workshop. The workshop was then declared open by him.

Dr.V. Raja, Professor and Head of the Department of Physics, provided a brief update on the department's progress as well as the importance of the workshop.

Sristi Ram Dyuthi, Scientist at the University of California, San Diego, USA, began the first session by explaining the fundamentals of machine learning and how machine learning applications relate to physics.

Dyuthi focused on some ML and DL methods that are now routinely used in various branches of physics during the second session. She explained how physics and machine learning/deep learning are interconnected and how they help solve problems in other fields. She predicts that in the future, more and more ML and DL methods will be used in physics. Finally, **Dyuthi** interacted with the students and gave gifts to those who answered the questions spontaneously.

The Physics Department was praised by the principal for organising the programme. He also thanked the resource person for sharing her knowledge and experience.

Dr. J. Subrahmanyam, Professor of Physics, proposed a vote of thanks, thanking the resource person and all attendees.



