

# EDITORIAL

Physics is a general analysis of nature, conducted in order to understand how the universe behaves, and also it is one of the oldest academic disciplines because it includes astronomy. In the present issue, fifth and last in the series on the completion of 50 years, we have included articles from various disciplines of physics and astronomy.

In “Mini Workshop on a Bicycle”, the author demonstrates that the power, generated at the bicycle pedals, can solve the problems of the day-to-day household repairs, grinding, turning, coil winding, drilling, etc. And the paper “Bullock-cart: A Laboratory for Science Teaching” describes some basic principles of work, force and motions with the help of bullock-cart as a teaching aid.

“Open-ended Experiments in Developing Cognitive Abilities” is an interesting article in which the author discusses open-ended approach for doing physics experiments and examining its effectiveness by field tests.

In “Teaching the Effects of Force at Grade Level VI: Textual Activities versus Hands-on Activities”, the author discusses about the effects of force and says that it is related to daily life situations, and that students can enhance their observation power when they identify the situations in the school environment wherein the effects of force are visualised.

In the article, “Education in Physics for Rural Children”, the author concludes that physics should largely be experimental and the curriculum must be smart and flexible, and the methods and values of physics must form a part of the classroom lessons, thus it requires support to the rural teachers.

In “Gravity in Action”, the author examines the phenomena and laws like Kepler’s law and law of gravitation which are direct consequences of the gravity.

In the article, “Nuclear Technology and Public Health”, the author discusses about the advantages of nuclear technology, nuclear accident and nuclear waste disposal with its effect on environment and health. The author also observes that the successful introduction of this technology requires interdisciplinary collaboration among the relevant scientists, various government regulatory and financial agencies and industries.

In the article, “How Big is the Moon and How Far is the Sky?”, the author in an interesting way estimates the size of heavenly bodies when they are near the horizon and when they are high up in the sky. It also proves that the moon, sun, and stars appear several times more distant when at the horizon than at the zenith.

In the article, “Astronomy in Science and in

Human Culture”, a Jawaharlal Nehru Memorial Lecture 1969, the author dissertates the contribution of scientists like, Hubble, Kepler, Newton, Galileo, etc., with their respective theories and laws in understanding astronomy. Besides, the author discusses about the Indian astronomers who went deep into the matter and tried to theorise all the natural phenomena during their three definite phases of astronomy.

In the article, “What is the Universe Like?”, the author considers the universe from the eyes of an astronomer or an astrophysicist and describes the astronomer’s view from the beginning of the telescope to planet then to galaxies to black hole, the location of earth and human species, etc.

In the article, “India’s Contribution to Astronomy: Religious and Historical Background”, the author describes that the Indian astronomers did lay the foundation, the generalisation, which during the sixteenth and seventeenth centuries became the main feature of the rapid development of astronomy in the West.

In “A Portable Nanogon Rotating Hut for Observational Astronomy Activities in School and Colleges”, the researcher describes that

for any systematic study of celestial bodies over several days or weeks in an educational institution, it would be better to install telescope permanently at the terrace or in an open field, at least for the duration of particular project.

In the article, “An Urgent Need for Inclusion of GIS in the Curriculum of Geography and Computer Science”, the author explains about the geographical information system technologies and their application, relevance and importance in the courses of both geography and computer science.

In the article, “First Indian at the South Pole”, the author shares various moment of the journey to Antarctica, i.e., from getting adaptability certificate to the climax of Antarctic expedition, and briefly describes their observations and innumerable difficulties faced during winter.

In the article, “Why do Camera Lenses Appear Coloured?”, the researcher discusses about ‘ripe plum color bloom’ and ‘bloomed lens’ and thus that camera lens provided with such anti-reflection or non-reflective coating are more popularly described as ‘coated lens’ or ‘bloomed lens’

We sincerely hope that our readers would find the issue interesting and educative. Your valuable suggestions, observations and comments are always a source of inspiration which guide us to bring further improvement in the quality of the journal.