

## PRESS RELEASE

The plane in which the Earth moves around the Sun is known as ecliptic plane. The Moon moves in a smaller orbit around the Earth. The plane of the Moon's orbit is not aligned with the ecliptic, but it is inclined to the ecliptic plane by about 5 degrees. Because of this, only very rarely, the moon crosses the imaginary line connecting the Sun and the Earth. Whenever this happens, an eclipse of the Sun takes place. Had this plane of the Moon aligned with the ecliptic plane, every new moon day an eclipse of the Sun would have occurred and every full moon day an eclipse of the Moon would have occurred.

When the Moon moves in the shadow of the Earth, it is known as the eclipse of the Moon or lunar eclipse. Lunar eclipses can take place only during particular full-moon days, when the Moon comes diametrically opposite to the position of the Sun, as viewed from the Earth. Only very rarely, the moon reaches the imaginary line connecting the Sun and the Earth and crosses the Earth's shadow in space. During other full moon days the Moon will pass above or below the Earth's shadow, hence no eclipse results. The shadow of the Earth cast by the Sunlight will have two components. One is darker shadow or umbra and the other is lighter shadow or penumbra. When the entire disk of the Moon crosses the lighter shadow, the eclipse is known as partial lunar eclipse.

One such eclipse of the Moon will occur during 12:13 a.m of 17<sup>th</sup> July 2019 and is visible upto 5:47 a.m on the same day. The partial Lunar Eclipse of 2019 Jul 17 is visible from the following geographic regions: South America, Africa, Asia and Australia. In Puducherry, this eclipse will be visible at the following timings.

|                          |                           |
|--------------------------|---------------------------|
| Penumbral eclipse begins | at 12:13 hrs (17.07.2019) |
| Partial eclipse begins   | at 01:31 hrs (17.07.2019) |
| Maximum eclipse is       | at 03:00 hrs (17.07.2019) |
| Partial eclipse ends     | at 04:29 hrs (17.07.2019) |
| Penumbral eclipse ends   | at 05:47 hrs (17.07.2019) |

Lunar eclipses can be observed without telescopes, from an open space. Observing a lunar eclipse with naked eye will not cause harm.

Subject to clear sky conditions, Puducherry Council for Science and Technology will be making arrangements for the public to view the event at Dr. Abdul Kalam Science Centre and Planetarium, Kurunji Nagar, Lawspet, Puducherry from 16.07.2019 at 8p.m by conducting lecture about the significance of the eclipse, followed by viewing some celestial objects and eclipse through telescope upto 5.45 a.m on the next day 17.07.2019.

(SMITHA.R)  
MEMBER SECRETARY  
PUDUCHERRY COUNCIL FOR SCIENCE AND TECHNOLOGY