COMPUTER GRAPHICS

PROJECT ABSTRACT

# T I T L E : S O L A R E C L I P S E

The following project titled **“ Solar Eclipse “** is implemented in C using **OpenGL** , **GLU** and **GLUT** libraries.It consists of an animation of specific time duration controlled by the Keyboards Click Event Handling.

The background consists of a beautiful serene lake scenery at the time of dawn just before sunrise.The direction of Eye View is set to East which is the Rising Direction for the Sun.The Sun rise effects are depicted with change of sky colours and temperature.Gentle winds flow across the surface of the lake creating ripples along its normal tangentially.The Sun undergoes **Scaling** and its size increases eventually.Alongside it also undergoes **Translation** during the course of the day routine.**Rotation** along its own axis is shown.

The key moment in the animation is the arrival of the Moon in the virtual normal of the Earth and Sun which causes the Black ball Shadow the Sun and covers it.In the background the colours slowly begin to fade as **partial solar eclipse** begins.In time the entire area of Sun is covered by the Black ball leaving only a thin film of Sun’s Circumference visible.The **total solar eclipse** retains for a few seconds and then begins to Translate out of the Sun’s Way and normality is restored.

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