**KONGU ENGINEERING COLLEGE**

**(Autonomous)**

**Perundurai , Erode - 638060**

**A STUDY ABOUT GRAVITATIONAL WAVE**

**INTERFEROMETER**

1. T.N ANERUDDH 2. M. LOHIT ARAVINDAN. 3. T. ANNAS

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**ABSTRACT:**

For the past few decades there is a astounding growth in the field of Astronomical Instrumentation. Inspite of many observatories there are many instruments that can recognize and benchmark Astronomical quantities in large scale. Such Instruments are known as Interferometers. University of Caltech and MIT have designed a typical instrument named “LIGO”. The Laser Interferometer Gravitational –wave Observatory (LIGO) is a large-scale physics experiment to detect cosmic gravitational-waves and to flourish gravitational –wave observations as an Astronomical tool. This experiment came to act in 2002 and is successful in detecting minute gravitational waves. LIGO depicts the growth of instrumentation in the prodigious field Astronomy. This paper highlights the principle of LIGO and has an sagacious explanation of the project.

Keyword:Astronomical Instrumentation, Astronomy, Interferometer, Gravitational waves,Theory of relativity.