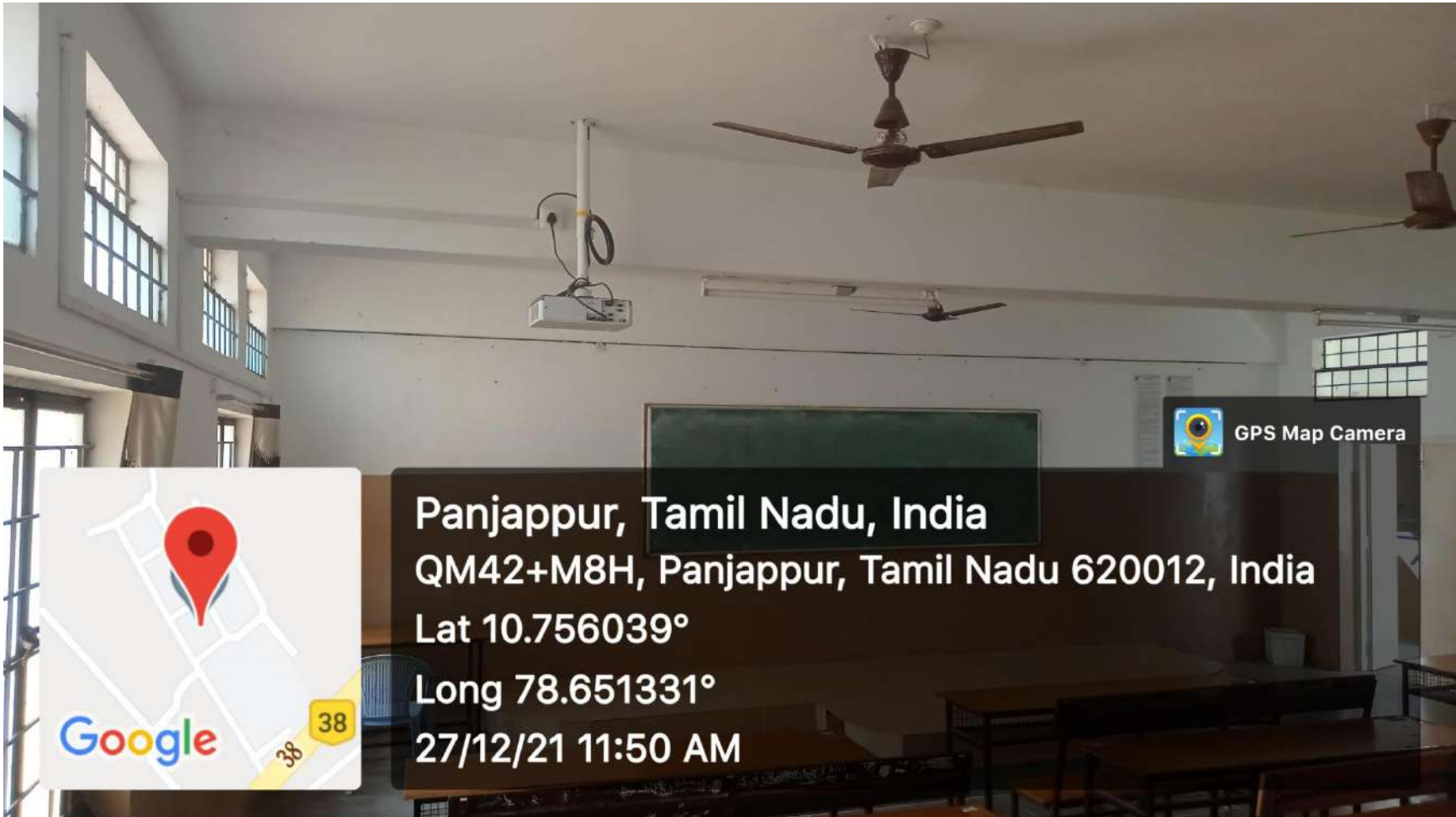


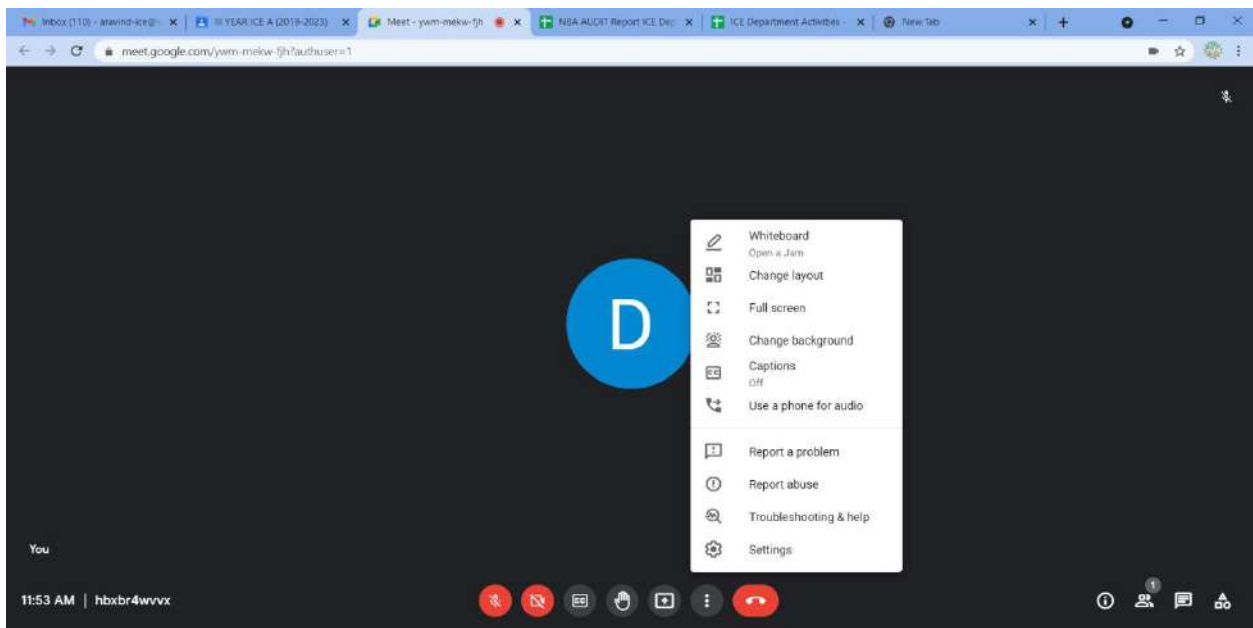
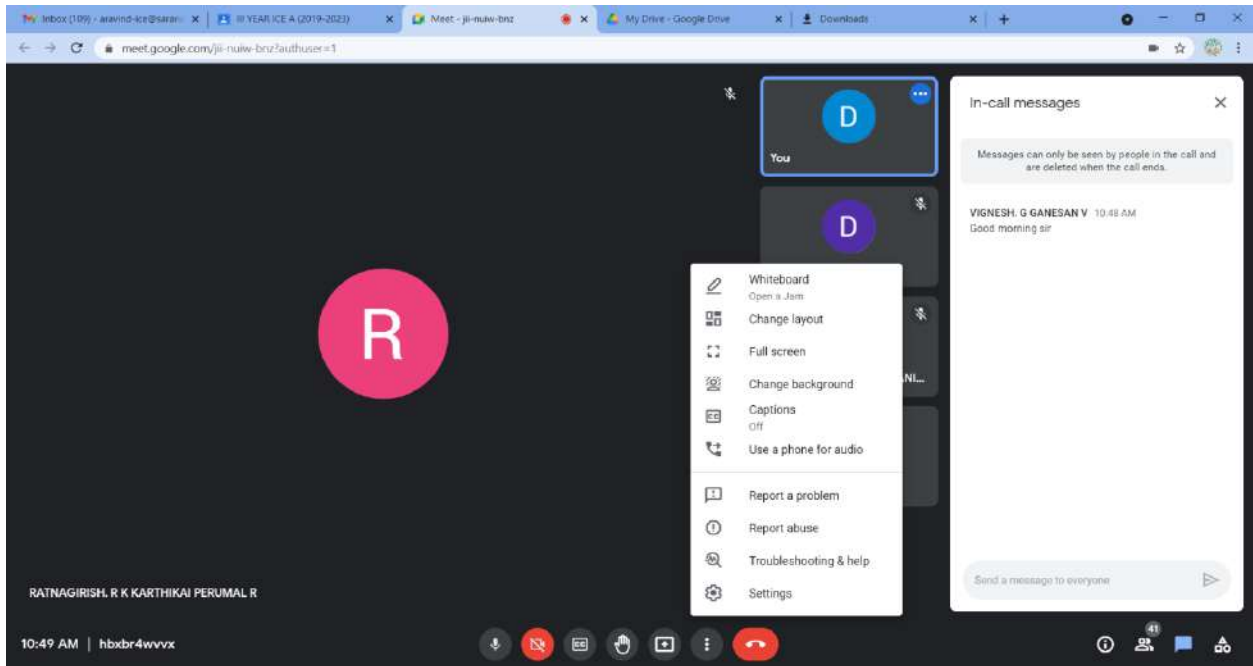
Department of Instrumentation and Control Engineering

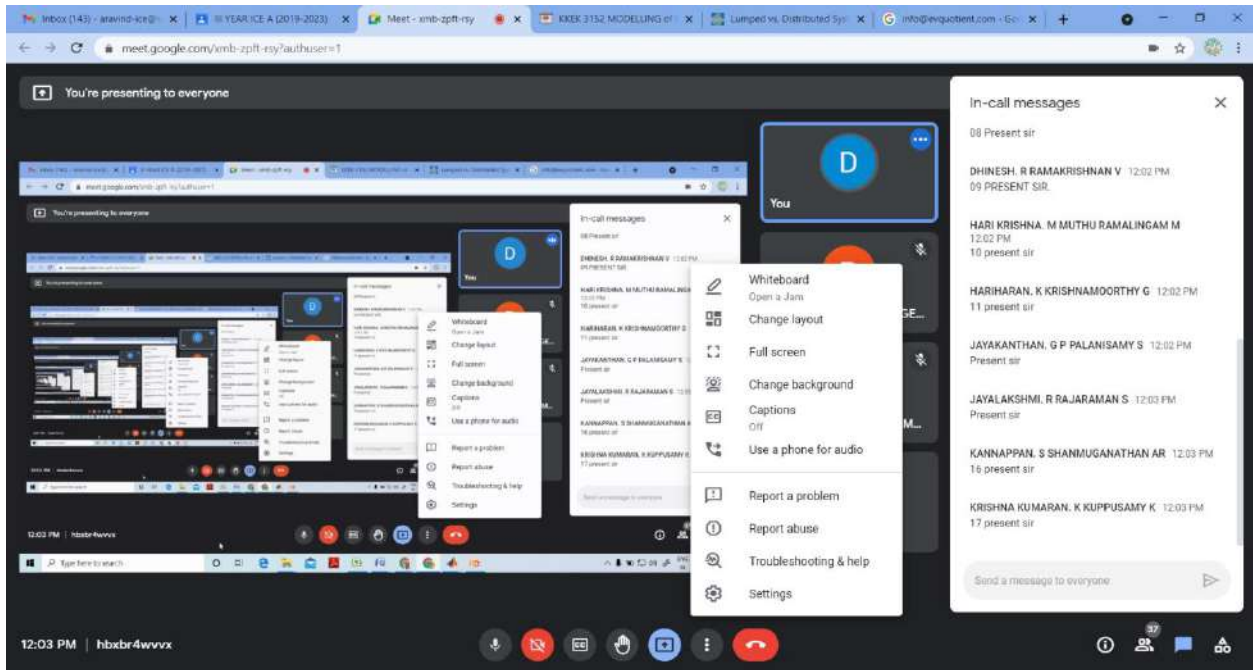
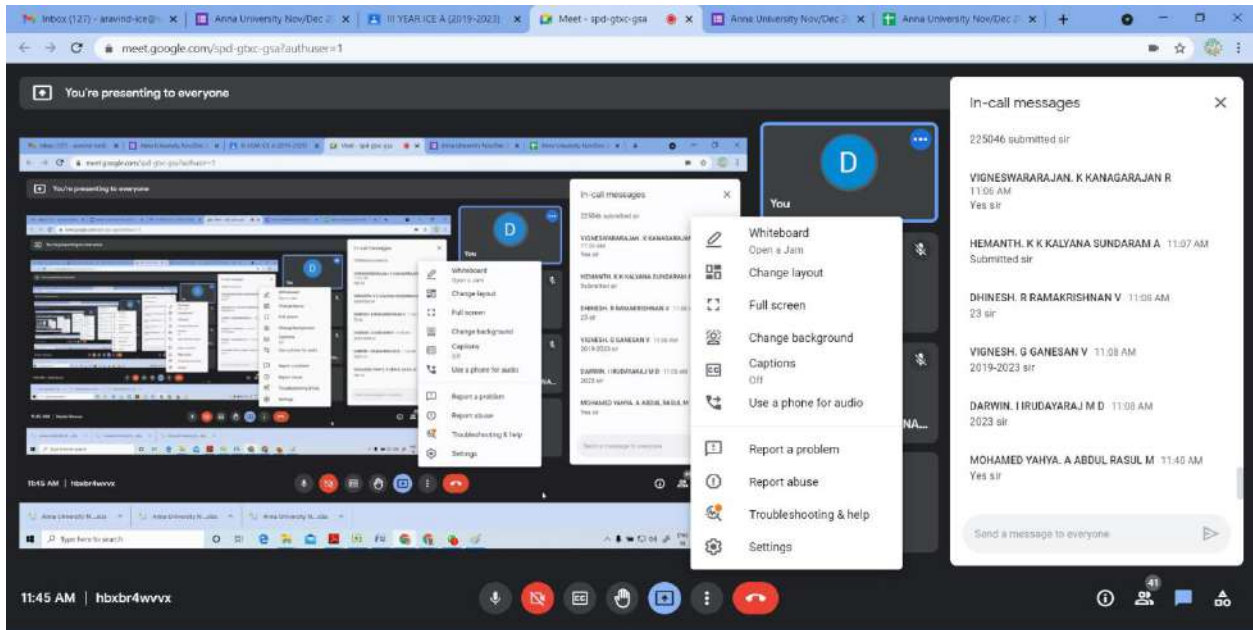
Room No: 215 installed with Projector



Department of Instrumentation and control Engineering
Saranathan college of Engineering

ICT Tool usage





Fibre optics and laser instruments

The screenshot shows a Google Meet window with a presentation slide titled "UNIT 4.docx". The slide content includes:

- A diagram of a fibre optic cable with labels for "Core", "Cladding", and "Buffer coating".
- Text: "The principle of the velocity of light fibre can be performed by scattering light of a laser. The laser beam intensity with wave-particle control along the path is maintained light is highly stable for the length of the fibre. This property is proportional to the velocity of the fibre. However, any light directly gives the fibre velocity."
- Text: "The appearance of light fibre can be performed by scattering light of a laser. Light scattered from the fibre is from particles scattered within the fibre and scattered in a regular direction. The appearance of the laser beam path is the magnitude of the light and hence the velocity of fibre."
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The meeting interface shows the presenter as NITHISH KUMAAR, R RAJAKUMAR R. The "People" list on the right includes: SELVABALAJI, K P PREMA..., SELVAKUMAR, B BASKAR..., SHARMILA, RANI, A ANAN..., SHIVAA, SANKAR, A ARUL P..., SURIYA PRAKAASH, D DH..., SWETHA, R RADHAKRISH..., VASUNDRA, R RANGAVIT..., and VICKRAM, K B BASKAR P.

The screenshot shows a Google Meet window with a presentation slide containing text and a formula:

in front of the lens. This region of the superimposing laser beams is the volume. The interference of the laser forms an interference fringe-pattern distance Δx between the fringes and angle ϕ between the beams and the of the laser light λ (Eq. 14.6).

$$\Delta x = \frac{\lambda}{2 \sin \phi}$$

If a particle crosses this measurement, i.e. the fringe pattern, a periodic intensity signal is generated by the light scattering particle. This intensity signal is captured by a photo detector. The so-called Doppler frequency f_D of this intensity signal detected by the receiving sensor is directly proportional to the velocity of the particle (Eq. 14.7) and the fringe distance Δx .

The meeting interface shows the presenter as NITHISH KUMAAR, R RAJAKUMAR R. The "People" list on the right is the same as in the previous screenshot.