Subtense Method

It is a surveying technique to measure distance using trigonometry.
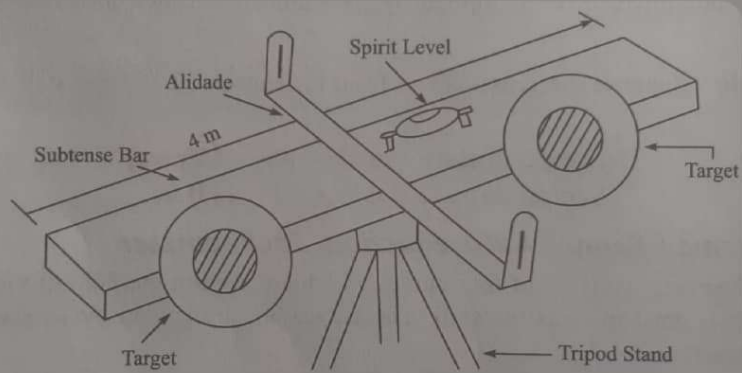
ST **by Shreejal Thapa**

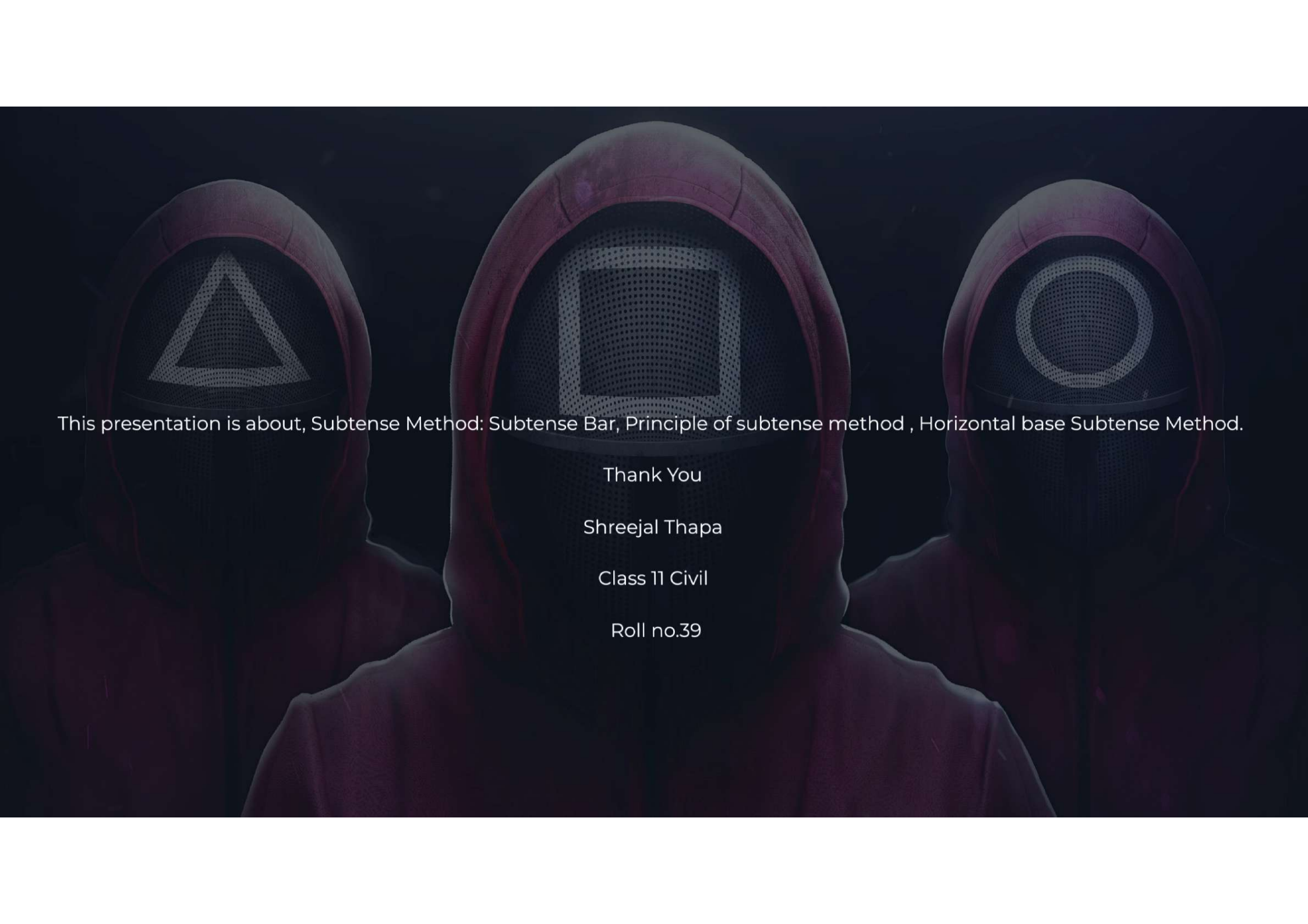Fig. 11.18 Subtense Bar

Subtense Bar

- A simple instrument with a 4m horizontal bar and two circular discs 3m apart.

- Used to measure the horizontal angle between targets to calculate the distance.

Principles of Subtense Method

- Based on trigonometry: The angle form by a known length (base) is measured.
- Formula: $D = L / 2 \times \tan(\emptyset/2)$
- Where, D= distance, L= Bar length, $\emptyset$= angle formed.

Horizontal base Subtense Method

- Useful for measuring distance across uneven or inaccessible area.

- Require precise angle measurement with a theodolite or similar equipment.

This presentation is about, Subtense Method: Subtense Bar, Principle of subtense method , Horizontal base Subtense Method.

Thank You

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