



# **SNS COLLEGE OF TECHNOLOGY**

**An Autonomous Institution  
Coimbatore - 35**

Accredited by NBA – AICTE and Accredited by NACC – UGC with 'A+ Grade  
Approved by AICTE , New Delhi and Affiliated to Anna University , Chennai.

## **DEPARTMENT OF AGRICULTURE ENGINEERING**

**19AGT201 – SURVEYING AND LEVELING**

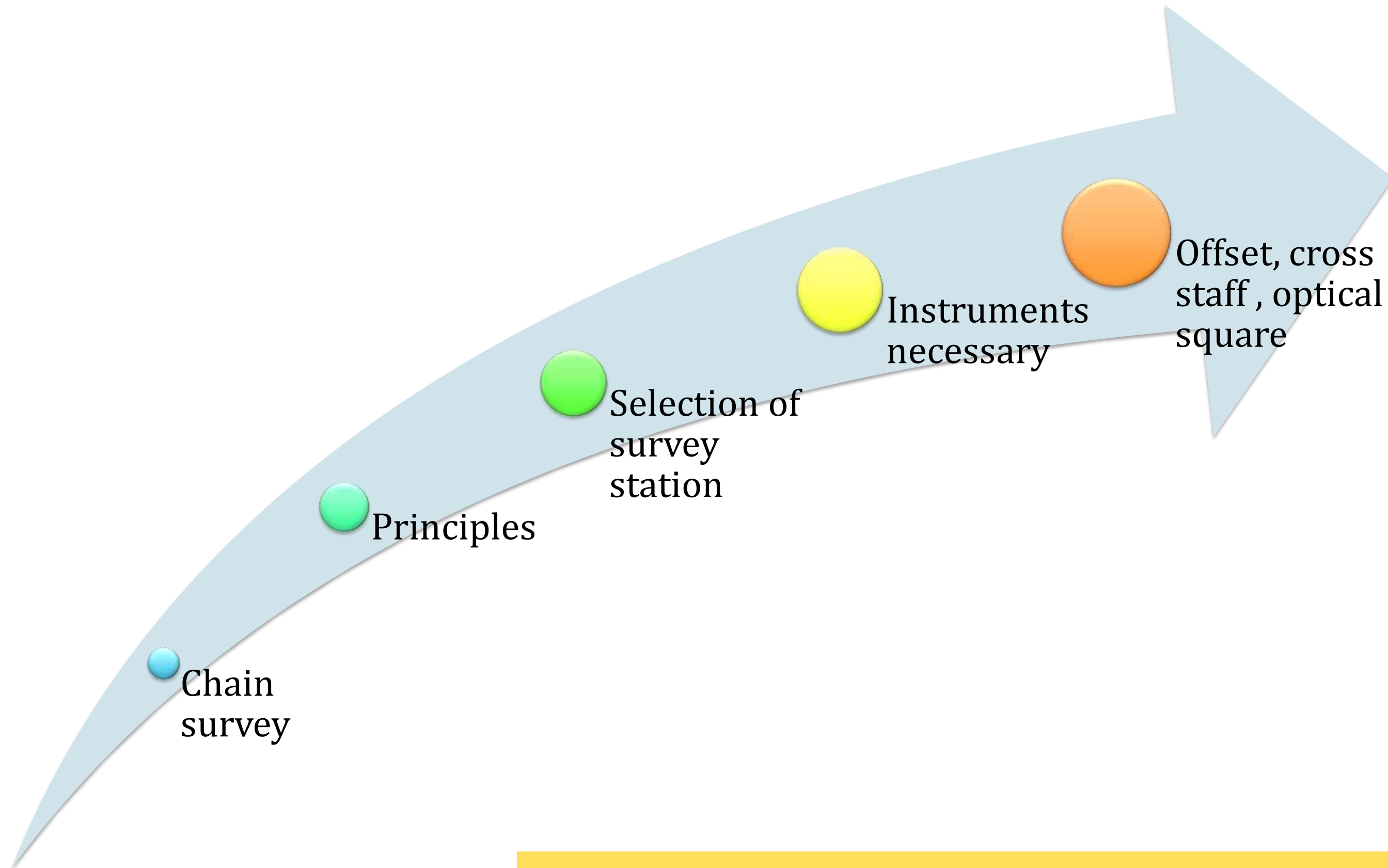
**II – YEAR III SEMESTER**

**UNIT 2 – CHAIN SURVEYING**

**TOPIC 3 – STEPS INVOLVED IN CHAIN SURVEYING**



# Last Class Review





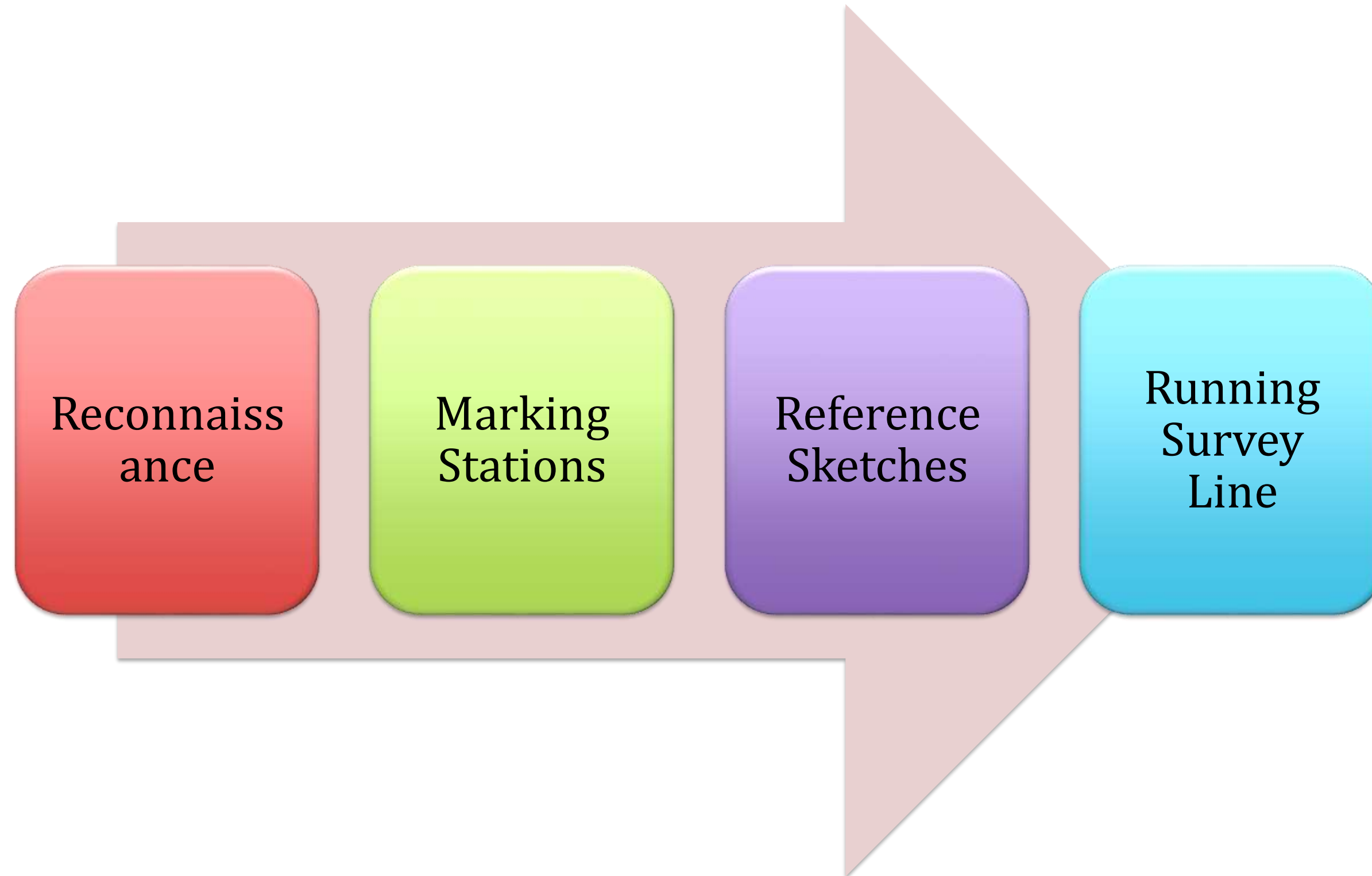
# Chain Survey



- ❖ Chain survey is the simplest method of surveying.
- ❖ In this survey only measurements are taken in the field, and the rest work, such as plotting calculation etc. are done in the office.
- ❖ This is most suitable adapted to small plane areas with very few details. If carefully done, it gives quite accurate results.
- ❖ The necessary requirements for field work are chain, tape, ranging rod, arrows and sometime cross staff.



# Steps





# Reconnaissance



- ❖ The preliminary inspection of the area to be chain surveyed is called reconnaissance.
- ❖ The surveyor inspects the area to be surveyed, survey or prepares index sketch or key plan. Walk the whole area and thoroughly examine the ground, note the position of boundaries, road, and river etc., various difficulties to chain lines, select stations, and prepare neat sketches called index sketches or key plan.



# Marking stations

- ❖ Stations are marked with ranging rod, or wooden peg, driving a nail or spikes if hard surface, or embedding stone with a cross mark.





# Assessment



- **Mention the instruments used for fixing angles**
- **What is the difference between those instruments**





# Reference sketches

- ❖ After marking the station should be referenced i.e. located by measurement called ties taken from 3 permanent points which are easily identified such as corner of building.

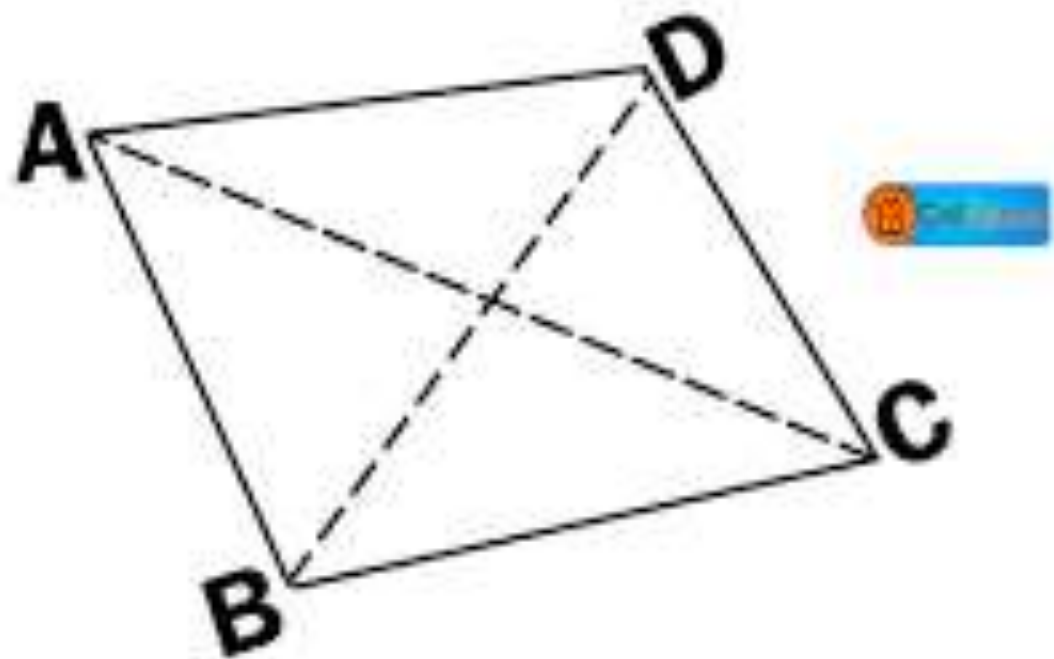






# Running survey line

- ❖ After the preliminary work, chaining is started from base line and carried throughout all the line of the framework continuously.
- ❖ So chain is laid and kept lying, offset are taken to locate the nearby details.
- ❖ Make ranging wherever necessary. Measure the change and offset and enter in the field book





# Suitability



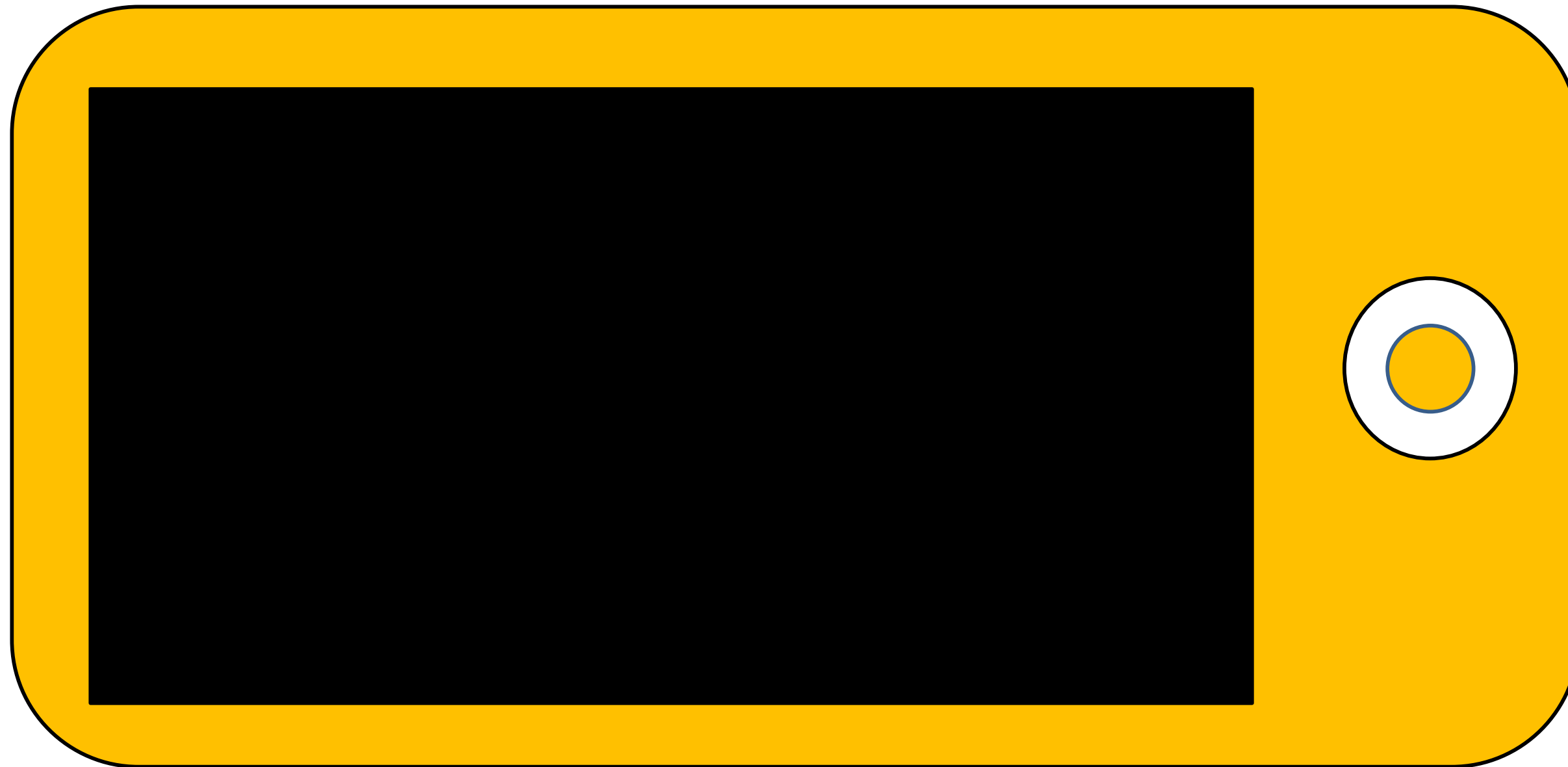
- ❖ Ground is fairly level and simple
- ❖ Plans are required on large scale e.g. fields
- ❖ When area is small in extent

## Chain Surveying is Not Suitable

- ❖ For Large Areas
- ❖ When too many details are required
- ❖ Wooded countries
- ❖ Undulating areas



# Reference Videos





**See You at Next Class!!!!**