

# TISHK INTERNATIONAL UNIVERSITY



**LABORATORY EQUIPMENT**

**ENGINEERING FACULTY**

**SURVEYING AND GEOMATICS ENGINEERING  
DEPARTMENT**





<b>Instrument Name</b>	GPS
<b>Model</b>	Leica, GS16
<b>Description</b>	The Leica Viva GS16 is the most compact and powerful, self-learning GNSS smart antenna. ... The growing number of signals from an ever increasing satellite constellation demands a GNSS receiver to be smarter than ever before.
<b>Main Purpose</b>	Precise position determination (Global Positioning)



<b>Instrument Name</b>	Total Station
<b>Model</b>	Topcon GTS 250 Series
<b>Description</b>	Total station is a surveying equipment combination of Electromagnetic Distance Measuring Instrument and electronic theodolite. It is also integrated with microprocessor, electronic data collector and storage system. The instrument can be used to measure horizontal and vertical angles as well as sloping distance of object to the instrument
<b>Main Purpose</b>	mainly used by land surveyors and civil engineers, either to record features as in topographic surveying or to set out features (such as roads, houses or boundaries).



<b>Instrument Name</b>	Electronic Theodolite
<b>Model</b>	South , ET 05
<b>Description</b>	A theodolite is a precision instrument used for measuring angles both horizontally and vertically. Theodolites can rotate along their horizontal axis as well as their vertical axis. Theodolites have a lot in common with transits. A transit is a surveying instrument that also takes accurate angular measurements.
<b>Main Purpose</b>	Measuring angles in the horizontal and vertical plane



<b>Instrument Name</b>	Digital Level
<b>Model</b>	Leica , Sprinter 250 M
<b>Description</b>	Highest Accuracy-Electronic level with built-in memory and USB interface. The Leica Sprinter 250M Digital Level offers 1/16" accuracy @ 250 ft, increases productivity and eliminates user error in the field. The Sprinter 250M allows users to perform their job quickly and efficiently.
<b>Main Purpose</b>	The Sprinter 250M is the perfect tools for advanced construction levelling tasks.



<b>Instrument Name</b>	Automatic Level
<b>Model</b>	Leica , NA 720
<b>Description</b>	automatic level is an optical instrument used to establish or verify points in the same horizontal plane. ... The instrument and staff are used to gather and/or transfer elevations (levels) during site surveys or building construction.
<b>Main Purpose</b>	construction levelling tasks