DEPARTMENT OF GEOGRAPHY

Maharshi Dayanand University, Rohtak

(A State University established under Haryana Act No. XXV of 1975)
'A^{+}' University Accredited by NAAC

The Changing Face of Surveying Tools in Geography

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Message from Head of the Department

The Department of Geography came into existence in 1983 with a vision to become a leading center of teaching, learning and research on interface between physical and human domains. A distinct identity for the department is its interdisciplinary nature with emphasis on spatial thinking. The department is multifaceted and has diverse fields ranging from geosciences, GIS, to social & cultural geography. The broad academic backgrounds of the faculty and the spatial thinking approach make the department easy to connect with many other disciplines in collaborative endeavours. The vision of the department is to lead the interdisciplinary investigation of many critical social and natural challenges and problems tied to regional, landscape, and environmental changes through a spatiotemporal lens. We emphasize geospatial concepts and lead the development of geography, and GIS programs to attract outstanding graduate and research students and faculty. Our faculty's research focuses on *GIS, earth-environment interactions, human dimensions of climate change, and spatial analysis of social issue.* These four clusters emphasize the importance of space, place, human, and the environment in addressing important research issues across natural and social sciences. The overarching goal of our programs is to train next generation of students to serve society and be critical spatial thinkers, using geographic theories and approaches to tackle some of the most challenging problems and questions facing the discipline and society.

Just like library catalogue, catalogue on survey instruments is an essential and important document. Department has rich source of survey instruments from very conventional to ultra-modern in nature. The main objective in the preparation and production of this catalogue is to assist the users in identifying the content of an instrument. The catalogue guides the users to identify, locate and access the surveying instruments for various uses.

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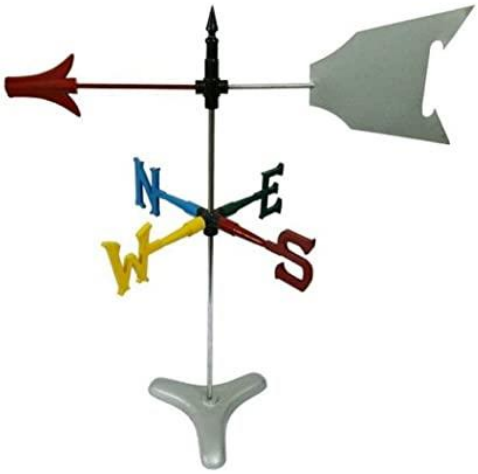
Old Cartographic Tools

Wind Vane:

A wind vane definition is an instrument that measures the direction from which the wind is blowing. They are sometimes called weathervanes and were a common sight on top of barns in the past. Wind vane has two ends, one end is shaped like an arrow and turns to the direction from which the wind blows and the other end is wider and catches the breeze. If the wind-vane arrow points to the east then it means that the wind is blowing from the east.



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Solar System Model

The solar system refers to the gravitationally bound system that revolves around the sun directly or indirectly. Also, the solar system consists of eight planets. Besides, we refer to these eight revolving bodies as a planet. Furthermore, the name of these planets is Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune.

To know more Click here or Scan this QR code.

Globe :

A globe is a three-dimensional scale model of the Earth or other round body. Because it is spherical, or ball-shaped, it can represent surface features, directions, and distances more accurately than a flat map. On the other hand, a globe may be less practical for travelers, since globes are much bulkier than flat maps and often carry less detailed information.

The oldest globe that survives to this day was made by the German geographer Martin Behaim in 1492—just before Christopher Columbus sailed to the New World. This globe is more accurate than Crates', but still leaves out North America, South America, Australia, and Antarctica.

To know more Click here or Scan this QR code.

Clinometer Compass

A clinometer or inclinometer Compass measures the inclination or dip of any rock bed or slope of a plane. ‘Cline’ or ‘incline’ means dip or inclination and a ‘meter’ means the measuring instruments. Surveyors mainly used to measure the dip and direction of a rock bed or earth layer to prepare a map or other civil planning for construction purposes in Geological and Geomorphological fieldwork. Generally, clinometer compass surveying is useful for preparing the geological map.

To know more Click here or Scan this QR code.

Brunton Compass:

A Brunton Compass is a specialized instrument used widely by those needing to make an accurate degree and angle measurements in the field. It is properly known as the **Brunton Pocket Transit.** David W. Brunton, a Canadian Geologist invented it in 1894.Brunton compass consists of plastic, non-chip gray case weight 12 ounces its case is water-resistant and sealed against dust with Brunton closed it is 2 ⅝ inches wide and 3 ⅛ inches long, and 1 ⅜ height. It has a fitting clasp on one side and on the opposite side allowing the instrument to open at an angle of 180 degrees.

To know more Click here or Scan this QR code.

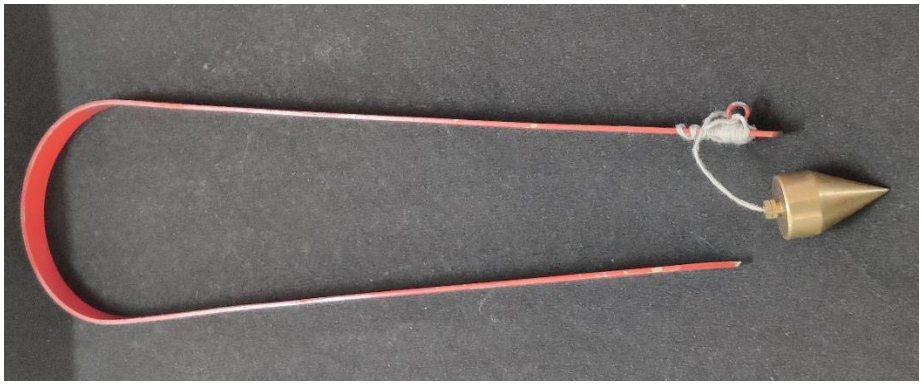
Prismatic Compass

Prismatic Compass is an instrument that has a prism attached with it to read the value engraved on a magnetic compass. The prism is Plano-convex in nature i.e. a 45o reflecting prism plane with the eye side face and its reading faces made slightly convex to magnify the image of reading on a circular magnetic plate. The magnetic bearing can easily visualize the presence of a prism. It is a small instrument that is capable to hold on the hand for observing. Most of the surveyor uses it on tripod stands to view the ranging rod.

To know more Click here or Scan this QR code.

Plumb Bob:

A plumb bob, plumb bob level, or plummet, is a weight, usually with a pointed tip on the bottom, suspended from a string and used as a vertical reference line, or plumb-line. It is a precursor to the spirit level and used to establish a vertical datum.



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Alidade :

The plain alidade consists of a metal or wooden ruler of length about 50 cm. One of its edges is bevelled and is known as the fiducial edge. It consists of two vanes at both ends which are hinged with the ruler. One is known as the object vane and carries horsehair; the other is called the sight vane and is provided with a narrow slit.

To know more Click here
or Scan this QR code.

Sprite level :

The spirit, or bubble, level, a sealed glass tube containing alcohol and an air bubble, was invented in 1661. It was first used on telescopes and later on surveying instruments, but it did not become a carpenter's tool until the factory-made models were introduced in the mid-19th century. The circular level, in which a bubble floated under a circular glass to indicate level in all directions, was invented in 1777. It lacked the sensitivity of the conventional level.

To know more Click here
or Scan this QR code.

Gunter's Chain (Jareeb) :

The Gunter's Chain is a device that was first introduced in 1620 and was used to survey not only the British Empire, but also the wilderness and early American settlements. The Gunter's Chain measures 66 feet in length and consists of 100 links usually marked off into groups of 10 by brass rings or tags. Though this device has become obsolete, it's use has left an imprint on our nation's history and how property has been measured and divided. The chain, the link, and the rod have all became statutory units of measurement that were made convenient by the Gunter's Chain.

1 chain = 66 feet
1 link = 0.66 feet or 7.92 inches

To know more Click here or Scan this QR code.

Measuring Tape :

A measuring tape is a flexible tool used for measuring length. It is made up of materials like fiberglass, cloth, plastic, metal ribbon or strip. So, it is a kind of flexible ruler also known as a tape measure. It is marked in centimetres and inches.

To know more Click here or Scan this QR code.

Drawing Instrument Box:

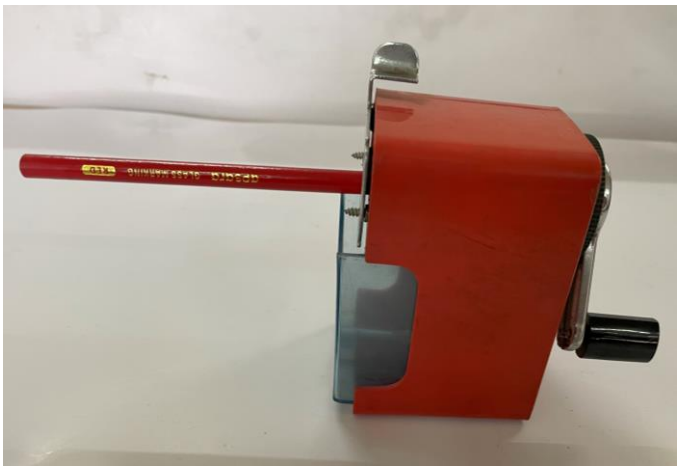
It is used to draw sketched and maps.

To know more Click here or Scan this QR code.

Pencil Sharpener :

A pencil sharpener is a device that is used to sharpen the tip of a pencil. The device typically consists of a small cylindrical or conical housing, with one or more sharpening blades inside.

To know more Click here or Scan this QR code.



Beam Compass:

Mechanical and architectural drawings have sometimes required circles with diameters of several feet instead of the several inches possible with a standard drawing compass. A beam compass was usually sold with just the points, which the user attached to the ends of a metal rod or wooden slat the length of the desired radius of the circle. One end was held in place, and the other end was pivoted around that end, maintaining contact with the paper. The patent model in the collection is a beam compass.

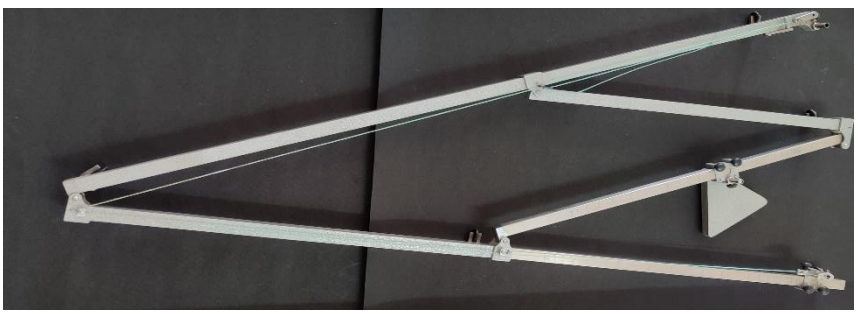
To know more Click here or Scan this QR code.

Pantograph :

A pantograph is a mechanical instrument that is used to copy or scale a drawing or image. It consists of a series of interconnected rods, joints, and pivots that allow the operator to trace a design with a stylus at one end while a pen or pencil attached to the other end simultaneously reproduces the image at a different scale or size.

Pantographs are commonly used by artists, architects, and engineers for enlarging or reducing drawings, creating copies of images, and achieving precise scaling. They are also used in the manufacturing industry for producing duplicate parts or templates with high accuracy. In addition, pantographs have been adapted for use in the digital age, with computer-controlled versions being used for precise cutting, milling, and engraving.

To know more Click here or Scan this QR code.



Plastic French Curve :

A French curve is a template usually made from metal, wood or plastic composed of many different segments of the Euler spiral (aka the clothoid curve). It is used in manual drafting and in fashion design to draw smooth curves of varying radii.

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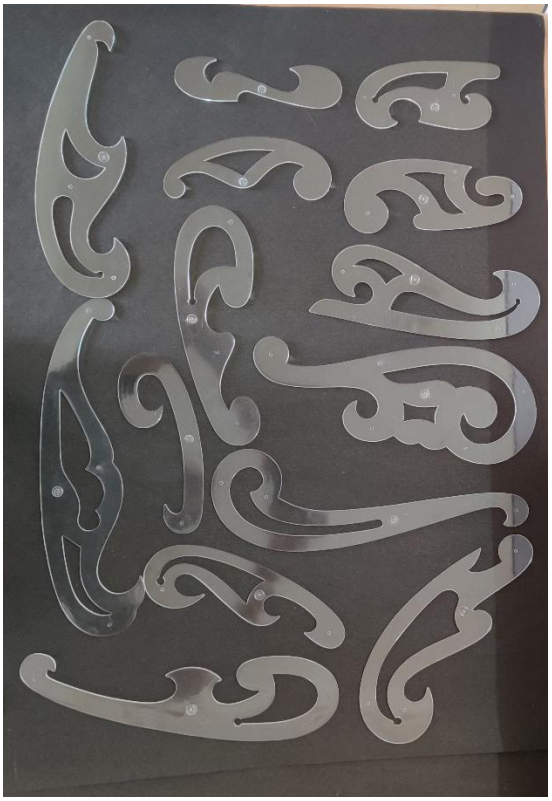


Rotring Isonorm Set :

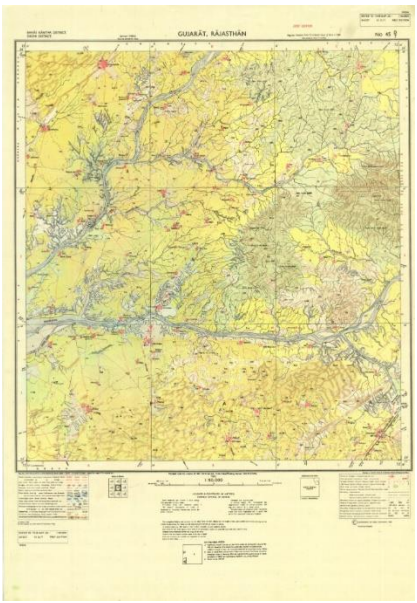
Rotring isograph Master set comprises 3 isograph pens, 1 Tikky mechanical pencil (0.5mm), 1 bottle of rotring drawing ink (black),1 rotring Centro compass spare compass leads and a compass adaptor. The isograph is the classic steel-nibbed technical drawing pen, familiar to several generations of draughtsmen.

To know more Click here or Scan this QR code.

Topographical Sheet:

Toposheets is a topographic map which is a two dimensional representation of a three dimensional land surface. Topographic maps are differentiated from the other maps in that they show both the horizontal and vertical position of the terrain. Through a combination of contour lines, colours, symbols, labels and other graphical representation. Topographic maps portray the shapes, location of mountains, and many other natural and manmade features. To identify a map of a particular area, a map numbering system has been adopted by survey of India.

Old



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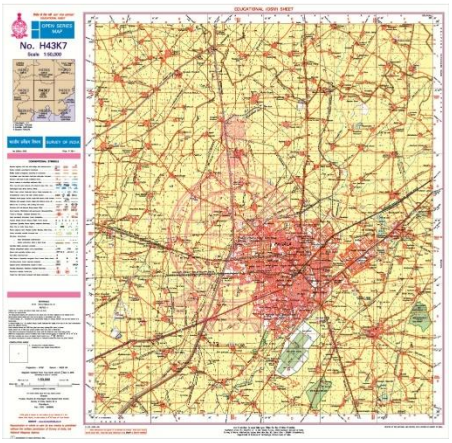


Pre-Modern Cartographic Tools

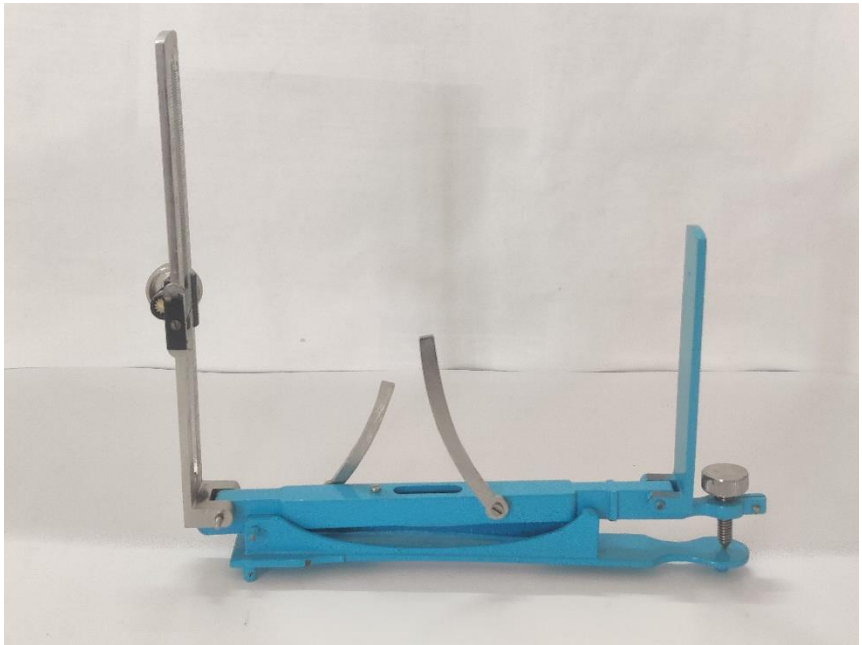
Pedometer :

This instrument is used to register the footsteps taken by a person while walking. Further approximate distance can be calculated with the help of footsteps.

To know more Click here or Scan this QR code.

Indian Inclinometer:

When performing topographic work, this equipment measures vertical angles and is extensively used in performing topographic work. It is combined with a plane-table to determine the height discrepancies between the measured sites and the plane-table. The instrument is made up of a long vertical arm with a central vertical slit that is hinged to one end of a rather heavy, long, thin, metal stand, and a peephole that is carried on a short vertical arm attached at its lower end to the other end of the stand. A longer vane can be moved up and down by a rack and pinion with a machined head that is attached to a slide with a small window and a horizontal wire in the canter. The stand has two feet at its forward end, a tilting levelling screw at its opposite end, as well as a level tube that can be used to show when the instrument is levelled.



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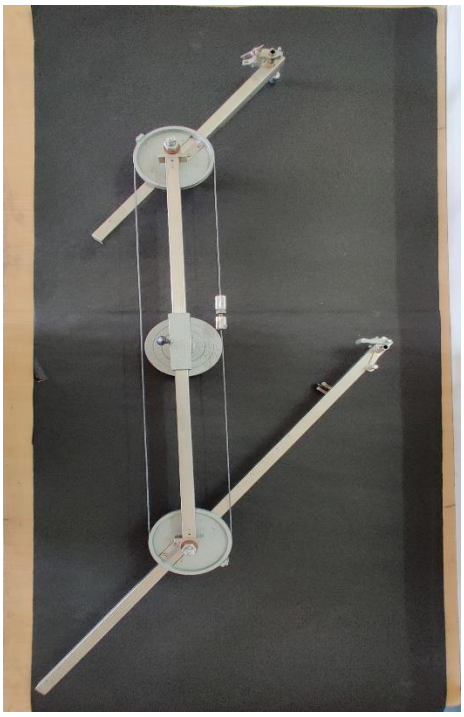
Eidograph :

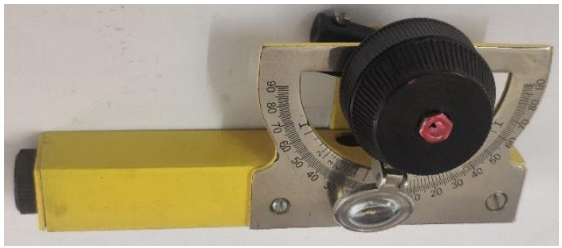
This known as an Endograph is mechanical plotting device which is used to redraw maps at different scales. It performs the same role as a pantograph. It is a brass construction with a round base that is 120 mm in diameter and a scale bar that lies horizontally on top of the base and can be changed to the desired scale. At each end of the bar, there is a graded disc that enables smooth, well-defined lines to be copied to the opposite map.

To know more Click here or Scan this QR code.



Topographic Abney Level :

Abney level and clinometer, is a surveying tool which is used for measuring vertical angles, determining height discrepancies, levelling. This instrument is made up of fixed sighting tube, a moveable spirit level attached to a pointing arm, and a protractor scale make up an



While sighting a faraway object, the user can see the bubble in the level thanks to an internal mirror. It is compact enough to fit in a coat pocket and can be used as a hand-held instrument or mounted on a Jacob's staff for more accurate measurement.

To know more Click here or Scan this QR code.

Magnifier Lens :

Magnifier Lens are used in Inspecting and Examining Objects, Repair and Maintenance Work, Laboratory Work, Naturalist and Entomology Studies.

Convex lens in the magnifier bend light rays so that they coverge or come together giving, the appearance that objects are larger. Essentially, magnifying glasses deceive your eyes into seeing something that isn't there.

To know more Click here or Scan this QR code.

Binocular :

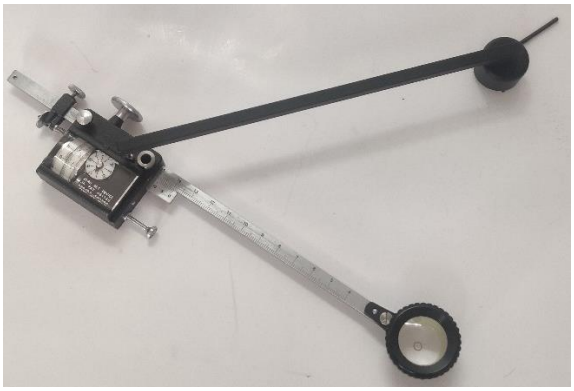
Binoculars are an optical device that are typically used to provide a magnified, three-dimensional picture of distant things. It comprises of two identical telescopes set on a single frame, one for each eye. It is possible to adjust the focus of both telescopes concurrently using a single thumbwheel, and it is also possible to modify the focus of each telescope independently to account for differences in the two eyes' characteristics. Binoculars are made to provide an upright, appropriately left-to-right orientated view.

To know more Click here or Scan this QR code.

Planimeter:

This instrument is part of surveying tools and is used to calculate the area of a given plan. To compute area, Planimeter just requires a plan to be created on the sheet. In general, it is exceedingly challenging to pinpoint the location of an irregular plot. Therefore, we can simply compute the area of any form using a planimeter.

To know more Click here or Scan this QR code.



Digital Planimeter:

The planimeter is used to find the areas of irregular figures on sheets. There are several formulas available for calculating the areas of regular figures, but the real issue occurs when the figure is irregular.

A nickel-cadmium storage battery that is incorporated inside the digital planimeter powers it. The mechanical planimeter's integrating wheel has been replaced by a rotary encoder. The area is presented in digital form after a rotary encoder's pulses are measured by an electronic circuit.

To know more Click here or Scan this QR code.

Automatic Slide Projector :

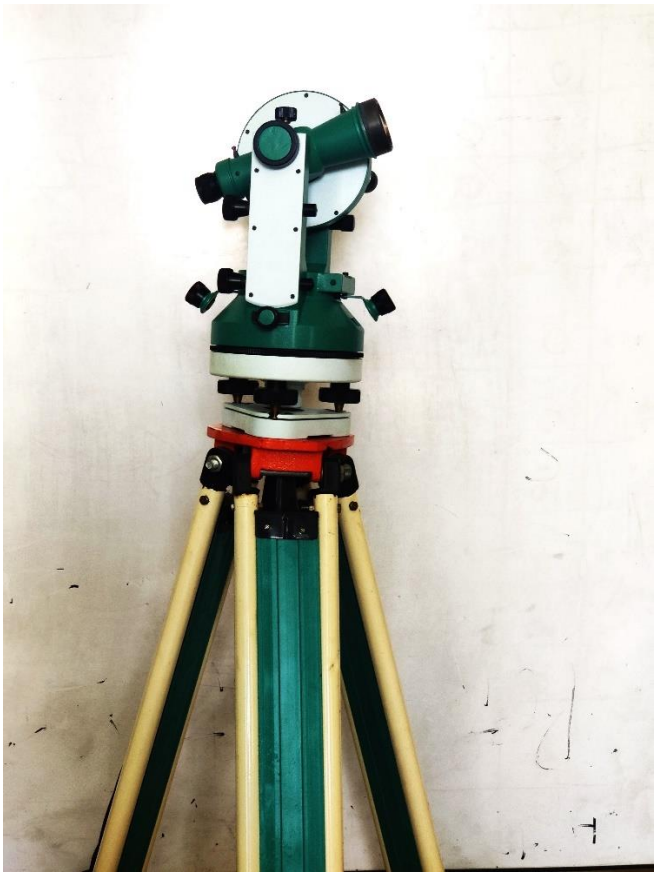
The automatic slide projector is a device designed for projecting photographic slides onto a larger screen or surface. It offers several benefits and uses in different contexts. The automatic slide projector's ability to project and transition between slides automatically simplifies the process of delivering visual content, making it a valuable tool in various professional, educational, artistic, and personal settings.

To know more

Click here or Scan this QR code.

Theodolite:

Theodolites are essential tools in geodetic surveys, boundary delineation, and infrastructure development, providing reliable and detailed data for various engineering and construction applications.

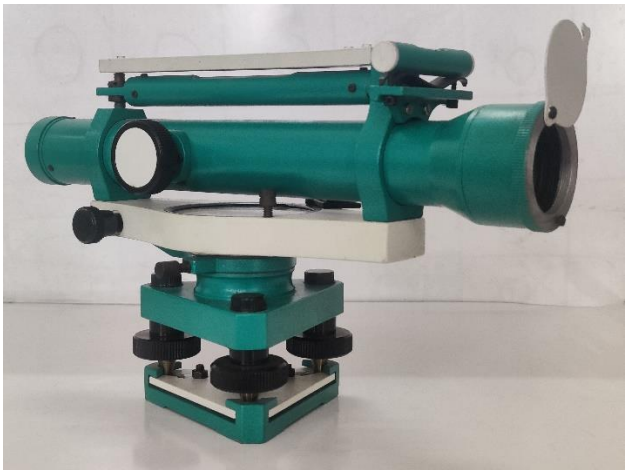


Theodolite is used to calculate horizontal and vertical angles with the help of a small, mobile low telescope. In order to find vertical and horizontal angles in surveying, a theodolite combines optical plummets (or plumb bobs), a spirit (bubble level), and graded circles. The theodolite is positioned above the survey point as nearly vertically with the help of an optical plummet. The device is level to the horizon with the internal spirit level.

To know more Click here or Scan this QR code.

Dumpy Level :

Dumpy level is an optical tool used for surveying and levelling tasks. It has a telescopic tube inside that is securely fastened using two collars and adjustable screws. The vertical spindle displays the entire instrument. The telescope that is kept on the low level can be turned around in the horizontal direction. By using a horizontal crosshair in the telescope, surveyors can sight points of interest and measure angles and elevations. With its straightforward operation and reliable results, the dumpy level is a trusted tool for precise levelling and measurement in various projects.

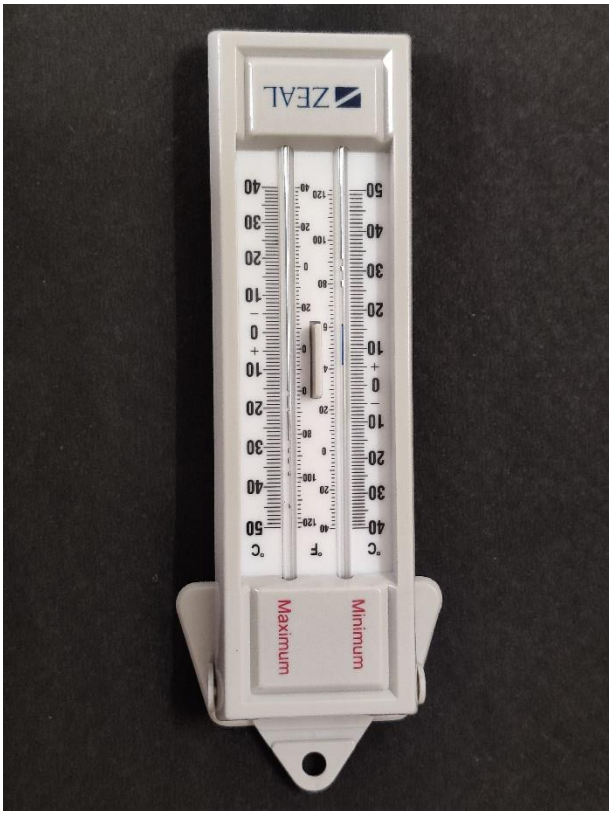


Automatic Dumpy Level

To know more Click here
or Scan this QR code.

Modern Cartographic Tools

Six's Maximum and Minimum Thermometer:



Maximum and minimum thermometer is a specialised device which is used to record the highest and lowest temperatures experienced over a given period of time. It comprises of a glass tube with two constriction points that is filled with mercury or alcohol. The tube has one open end that is attached to a bulb and one sealed end. When the temperature changes, the liquid expands and contracts, creating a visible trace on the tube. This thermometer is frequently used to record temperature changes over a specific time period for scientific study, agriculture, and weather monitoring.

To know more Click here or Scan this QR code.

Non-contact Infrared Thermometer :

An infrared thermometer is a type of thermometer that determines temperature using some of the thermal radiation generated by the objects. Since a laser is used to help aim the thermometer, they are also sometimes referred to as laser thermometers, non-contact thermometers, or temperature guns to describe their capacity to measure temperature at a distance. With its ability to measure temperature without physical contact, it ensures safety and prevents cross-contamination.

To know more Click here or Scan this QR code.

Laser Light :

A laser pointer, also known as a laser pen, is a tiny handheld device with a power source (typically a battery) and a laser diode that emits a very narrow low-powered laser beam of visible light. Its purpose is to be used to highlight objects of interest by casting a tiny bright spot of coloured light on them.

To know more

Click here or Scan this QR code.

Garmin GPS:

A global positioning system (GPS) is a networking system of satellites which provide precise location and time to the user. Due to its higher accuracy, GPS is used in surveying, maritime and transport navigation, aviation, smartphone based mapping and outdoor recreation.

To know more Click here or Scan this QR code.

Digital Camera:

A digital camera is a device that takes pictures and stores them digitally. Now a days, digital cameras have mostly replaced film-based cameras. Digital cameras are increasingly extensively used in mobile devices like smartphones. Professional photographers and amateurs who want to produce better photos still frequently utilise high-end, high-definition dedicated cameras.

To know more Click here
or Scan this QR code.

Analog Camera:

An analogue camera, commonly referred to as a film camera, uses conventional photographic film to record images. Contrary to digital cameras, which use electronic sensors to capture images, analogue cameras use a mechanical method to capture images on film. The nostalgic and distinctive feeling that these cameras provide is loved by photographers and artists.

To know more Click here
or Scan this QR code.

Floppy:

In the latter half of the 20th century, a floppy disk—also called a diskette, was a common storage device. Floppy discs allowed users to store and transmit data between computers with a storage capacity ranging from a few kilobytes to a maximum of 1.44 megabytes. They were frequently used to store software, papers, and even the earliest versions of computer games. Floppy discs, however, became outdated with the development of more sophisticated storage technologies like CDs and USB flash drives. Floppy discs, despite having a little storage capacity, were crucial to the development of personal computing.

CD (compact disc):

The way we store and retrieve digital information was revolutionised by the compact disc, or CD. When it was first introduced in the 1980s, it swiftly overtook other formats for data storage, software, and music. Music lovers and computer users alike found the CD to be portable and useful due to its small size and endurance.

To know more Click here or Scan this QR code.

Pen Plotter:

A pen plotter, also known as an XY plotter, is a computer-controlled device that rapidly and accurately creates drawings or text. To produce an image, these writing implements are raised, lowered, and moved over the printing medium. From their straightforward beginnings, they have grown to become potent computer-aided XY plotters. The vector files that modern pen plotters can read include SVG and other formats. These files let you to combine various forms, pathways, and text elements to produce a wide variety of graphics.

To know more Click here or Scan this QR code.

Pocket Stereoscope:

Pocket stereoscope, with slide holder 151 x 60 x 7 mm. Legs of stereoscope fit into four holes of slide holder. Supplied with two stereoscopic vision test charts (VI/72), nine stereo pictures on photographic paper and two (left and right) colour slides on an orchid.

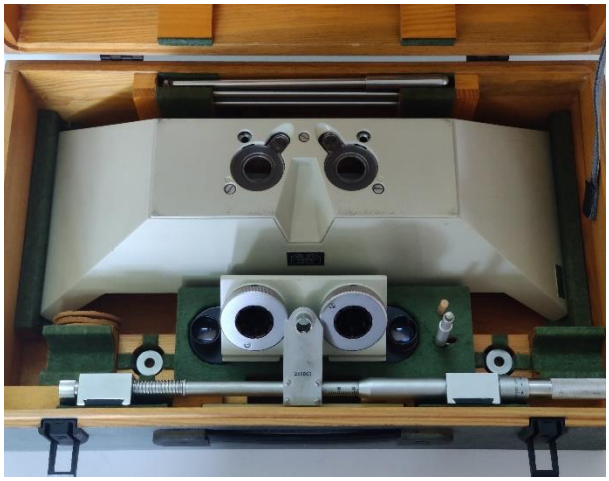
To know more Click here or Scan this QR code.

Mirror Stereoscope:

This is a mirror stereoscope for the viewing of stereo photographs, including 23 x 23 cm aerial photographs. The stereoscopic viewing distance of the photo pairs is 250 mm.

Schwidewsky (1959, see figure above) explains the working principle as follows: "The mirror stereoscope permits the observation of large photographs in that the distance (a) between the axis rays is enlarged by double reflection to a multiple of the interpupillary distance (a').

To know more Click here or Scan this QR code.



Aerial Photograph

An aerial photograph, in broad terms, is any photograph taken from the air. Normally, air photos are taken vertically from an aircraft using a highly-accurate camera.

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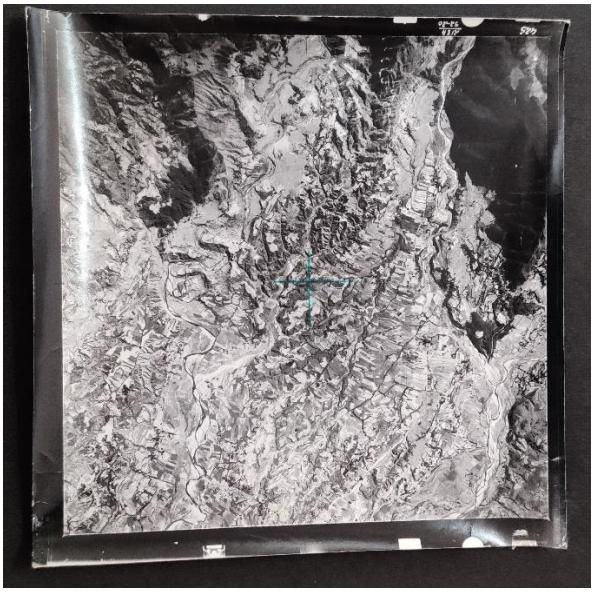


Satellite Image

Satellite imaging, or remote sensing, is the scanning of the earth by satellite or high-flying aircraft in order to obtain information about it. There are many different satellites scanning the Earth, each with its own unique purpose.

Satellites use different kinds of sensors to collect electromagnetic radiation reflected from the Earth. Passive sensors collect radiation which the Sun emits and the Earth reflects, and don't require energy.

To know more Click here or Scan this QR code.

Overhead Projection:

An overhead projector is a very basic but reliable tool used to display images onto a screen or wall. It consists of a large box containing a cooling fan and an extremely bright light, with a long arm extended above it. At the end of the arm is a mirror that catches and redirects the light towards the screen.
This type of projector can be used to enlarge images onto the screen or wall for audiences to view. Transparencies can be placed onto the base to be viewed by both the audience and the speaker. The device was once a common feature in both classrooms and business meetings, although it has seen a decline in use as more sophisticated computer based projectors are favored.

To know more Click here or Scan this QR code.

Document Camera Visual Presenter:

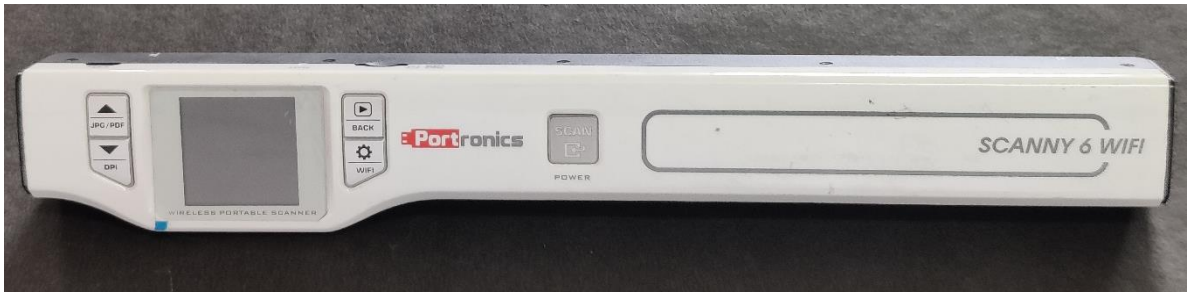
Document cameras, also known as visual presenters, visualizers, digital overheads, or docucams, are real-time image capture devices for displaying an object to a large audience. Like an opaque projector, a document camera is able to magnify and project the images of actual, three-dimensional objects, as well as transparencies. They are, in essence, high resolution web cams, mounted on arms so as to facilitate their placement over a page.

To know more Click here or Scan this QR code.

Document Scanner:

Document scanners are devices that convert documents into digital information. These scanners are frequently used in business settings to convert important documents into digital data.

- **Portable Paper Scanner**



- **HP Document scanner**

Contex Scanner:

Scanning wide format documents is easy and affordable, anywhere The Contex SD 3600 packs a huge amount of wide format value into its 36"" compact package.

To know more Click here or Scan this QR code.

Soil Test Kit

Soil Test Kit includes everything you need to perform ten tests for each of the following factors: nitrogen, phosphorus, potassium, and pH (acidity/alkalinity). It contains test capsules, mixing chambers, dropper, color comparison chart, pH preferences for over 450 plants and instructions on how to alter your soil.

To know more Click here or Scan this QR code.

pH Tracer PockeTester :

The electronic pH Tracer allows direct reading of pH from 0.01 to 14.00 pH. The Tracer offers simultaneous pH and Temperature displays and a 15-reading memory storage. pH range is 0.00 to 14.00 pH/0.01 pH. Temperature range is 23° to 194°F (5° to 90° C).

To know more Click here or Scan this QR code.

Infilterometer:

An infiltrometer is a device used to measure the rate of water infiltration into soil or other porous media. Commonly used infiltrometers are single-ring and double-ring infiltrometers, and also disc permeameters.

To know more Click here or Scan this QR code.

Digital Rain Gauge:

The Digital Rain Gauge with Self-Emptying Wireless Rain Collector features a rain meter to measure total rainfall measurements that report to the easy-to-read LCD display every 60 seconds. This digital rain gauge tracks rainfall history, including current rainfall events in one or seven-day measurements.

To know more Click here or Scan this QR code.

Drone :

Drone surveying is an aerial survey conducted using drones and special cameras to capture aerial data with downward-facing sensors. It is frequently used by surveyors and engineers in construction for terrain assessments and mapping. Drone Mapping in Surveying.

To know more Click here or Scan this QR code.

DGPS :

A Differential Global Positioning System (DGPS) is an enhancement to the Global Positioning System (GPS) which provides improved location accuracy, in the range of operations of each system, from the 15-meter nominal GPS accuracy to about 1–3 cm in case of the best implementations of DGPS.

To know more Click here or Scan this QR code.

Total Station:

A total station is an electronic/optical instrument used in modern surveying and building construction that uses electronic transit theodolite in conjunction with electronic distance meter (EDM).It is also integrated with microprocessor, electronic data collector and storage system.

To know more Click here or Scan this QR code.

High Precision GPS Laboratory:

Understanding of Earthquake occurrence in the Delhi-Aravalli fold belt requires monitoring of crustal deformation and earthquakes monitoring. To monitor crustal deformation across the Delhi-Aravalli region, CSIR-NGRI Hyderabad in association with Maharshi Dayanand University, Rohtak, has established a High Precision GPS Laboratory in the campus. The location of the laboratory is as under.

High Precision GPS Laboratory

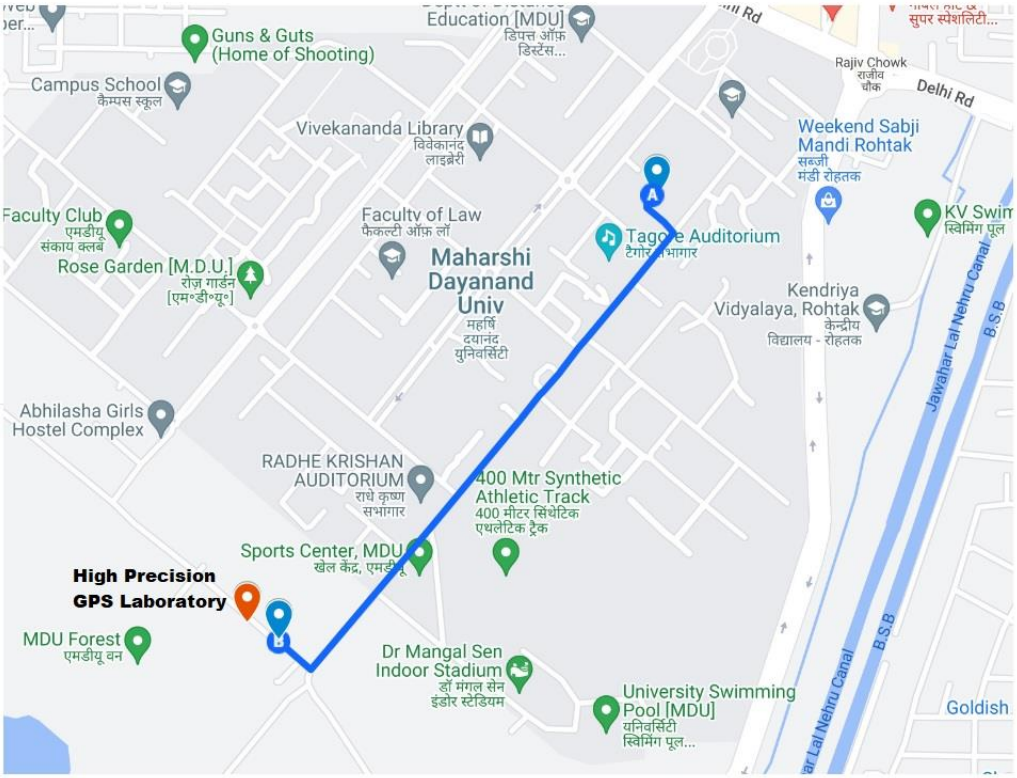
Map of High Precision GPS Laboratory

- Department of Geography
- Point 1
- **High Precision GPS Laboratory**

Directions from Department of Geography to Point 1

- A Department of Geography
- B Point 1

To know more Click here or Scan this QR code.



Department of Geography
Thank You for your
Kind Visit

A Brief Note on this Event

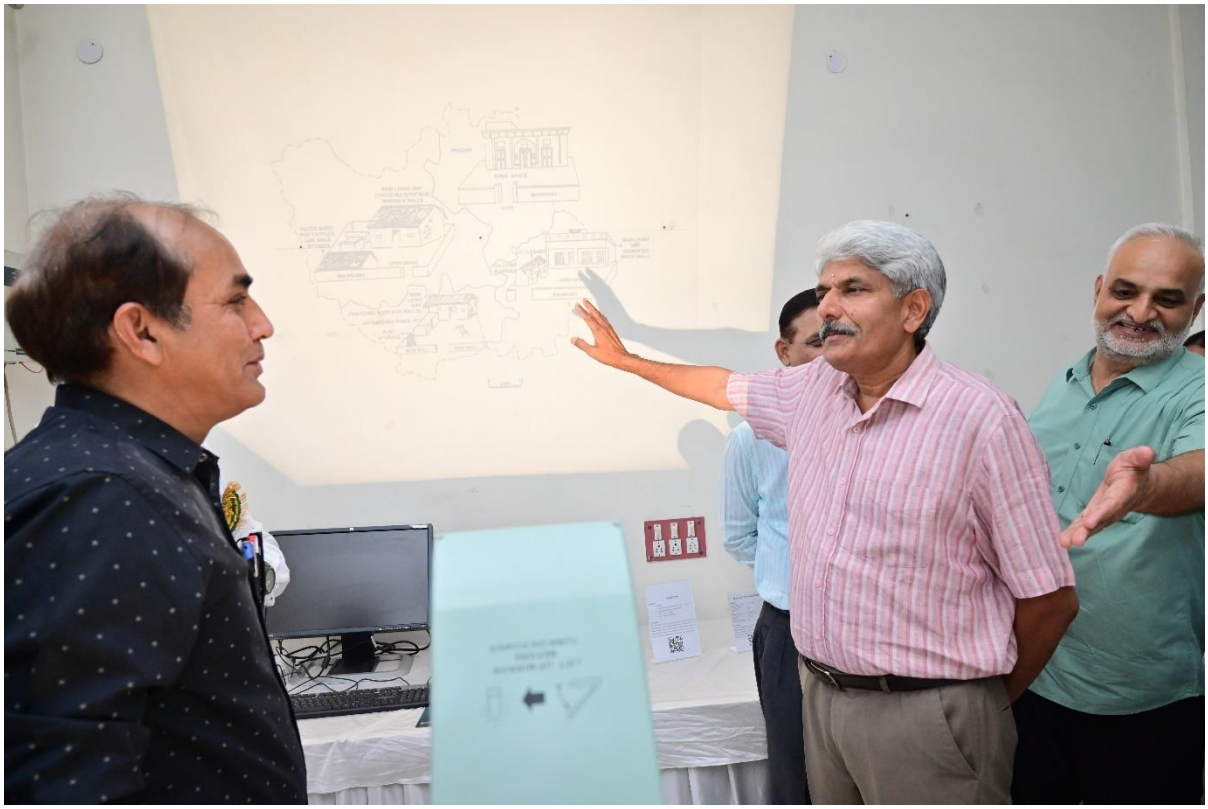
The Department of Geography organized a workshop cum exhibition namely “THE CHANGING FACE OF SURVEYING TOOLS IN CARTOGRAPHY” in the department itself. Prof. Rajbir Singh, Hon'ble Vice-Chancellor, MDU, Rohtak was the chief guest and inaugurated the event. Prof. Gulsan Lal Taneja, Registrar was Guest of Honour for this event. Prof. Mehtab Singh, Head of the Department welcomed all the dignitaries. Under this event, the department invited students from various schools and colleges of the city to showcase how different cartographic tools evolved over time. Students and research scholars of the department showcased all the instruments (nearly 100) and enriched every visitor. They explained to every visitor about the specific instrument and also enriched their knowledge about their uses and practical outcomes. The exhibition covered old-age instruments (e.g., Wind Wane, Prismatic Compass, Topographic Sheet, etc.), pre modern instruments (Pedometer, Eidograph, Planimeter, Theodolite etc.) and modern-day instruments (e.g., Total Station, DGPS, Drone, etc.).

On arrival, the guests visited the exhibition. After this, faculty members had a small gathering with the dignitaries. Prof. Mehtab Singh along with the members of **Student Welfare Committee** handed over the **“COSMOS”** a compilation of all the events which were organised as a part of Student Welfare Activities on every Friday in the form of a memento. Along with it, a **CATALOGUE** of all the cartographic tools/instruments which were displayed in the exhibition was also released by the Hon'ble Vice-Chancellor. The catalogue includes details about all the cartographic tools which were shown in the exhibition and a QR code was also presented which will help everyone to download this catalogue as and when required. Overwhelmed by the show of the students, Vice-Chancellor donated Rs. 25,000 from his kitty towards the Student Welfare Committee (SWC) of the department under the ages, the entire programme was organised. It is pertinent to mention here that Student Welfare Committee organised/ helped the department to organise 21 activities during last 6 months. This event was attended by Prof. K.S. Chauhan, Dean, Faculty of Social Sciences, Prof. S.C. Malik, Dean of Physical Sciences and scores of other faculty members across the departments. More than 300 students from teaching departments, Campus school and from all the colleges of the town descended in the department for the exhibition.

Memories


SHE
GIRLS


SHE
GIRLS TOILET




TOILET


Guests of Honour
PROF. SURENDRA KUMAR
Dean, Academic Affairs
PROF. AJAY K. RAJAN
Director, CRSIS & EC
PROF. GULSAN LAL TANEJA
Registrar


CONVENTIONAL SYMBOLS


NEW ARRIVAL
Climate Change and Biodiversity
GEOGRAPHICAL INFORMATION SYSTEM AND CRIME MAPPING
WATERSHED MANAGEMENT


DEPARTMENT OF GEOGRAPHY
MAHARSHI DAYANAND UNIVERSITY
ROHTAK
HEADS OF THE DEPARTMENT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LAB NO.- II
MEHTAB SINGH
HEAD
DEPT. OF GEOGRAPHY


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MEHTAB SINGH
HEAD
DEPT. OF GEOGRAPHY


LAB NO. - II
P.G. CLASSES
MEHTAB SINGH
PROFESSOR & HEAD
HEAD


MEHTAB SINGH
HEAD
DEPT. OF GEOGRAPHY


LAB. II - PG CLASSES
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POLITY


GIRLS TOILET


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