

Spatial information systems...

Spatial Information Systems is a comprehensive information system that deals with the definition of geographical objects not only by coordinate values, but also by attribute information. The most important feature of these systems is the absolute definition of any object with coordinate information (graphic), as well as the existence of alpha-numeric (non-graphic) textual information describing the properties of that object.

SPATIAL (GEO-) INFORMATION			
LAND-RELATED INFORMATION SYSTEMS		GEO-SPATIAL INFO SYSTEMS	
ENVIRONMENTAL INFO SYS	INFRASTRUCTURE / URBAN INFO SYS	LAND / PARCEL BASED INFO SYS (LIS)	SOCIO-ECONOMIC INFO SYS
SOIL CLIMATE GEOLOGY MARINE LAND COVER / USE FOREST WILD LIFE	PUBLIC SERVICES BUILDINGS ROAD NETWORKS STREETS ADDRESS COMMUNICATION SEWERAGE	CADASTRE PROPERTY LAND OWNERSHIP LAND VALUE LAND RIGHTS REAL ESTATE TAXATION	HEALTH CENSUS ELECTION CRIME DEMOGRAPHIC EDUCATION STATISTICS

Aimed to land *Parcel referenced* *Aimed to people*

Point and area referenced



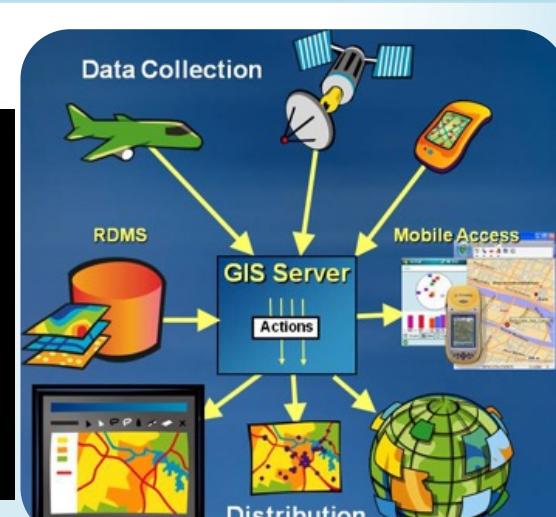
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Geographic information systems (GIS)...

GIS | CBS,
Production of smart maps

...collection
...storing
analysis
...display



Data Collection: Satellite, Airplane, Handheld device. Arrows point to **RDMS** (Relational Database Management System).

RDMS: A cylinder icon representing a database.

GIS Server: A central blue box labeled "Actions".

Mobile Access: A handheld device icon.

Distribution: A globe icon representing map output.

Actions: A box between the GIS Server and the Distribution globe.

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Geographic information systems (GIS)...

A Geographic Information System (GIS) links locational (spatial) and database (tabular) information to a person to visualize patterns, relationships, and trends. This process gives an entirely new perspective of analysis that cannot be seen in a table or list format. The five components of a GIS are listed below:

The diagram shows the five components of a GIS arranged around a central 'GIS' logo:

- HARDWARE:** Includes computers, networks, peripheral devices like printers and plotters, and digitizers.
- SOFTWARE:** Includes GIS Software, Database Software, OS Software, and Network Software.
- DATA:** Includes Vector Data, Raster Data, Image Data, and Attribute Data.
- PEOPLE:** Shows a group of diverse professionals including Administrators, Managers, GIS Technicians, Application Experts, End Users, and Consumers.
- METHODS:** Shows well-designed plans and application-specific business rules describing how technology is applied, including Specifications, Standards, and Procedures.

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Land information systems (LIS)...

Land Information System (LIS);
It can be defined as "the science and art of decision making in the support of clearly perceived objects, a combination of human and technical resources in terms of management, in the integrity of the procedures arranged to produce information for some managerial requests".

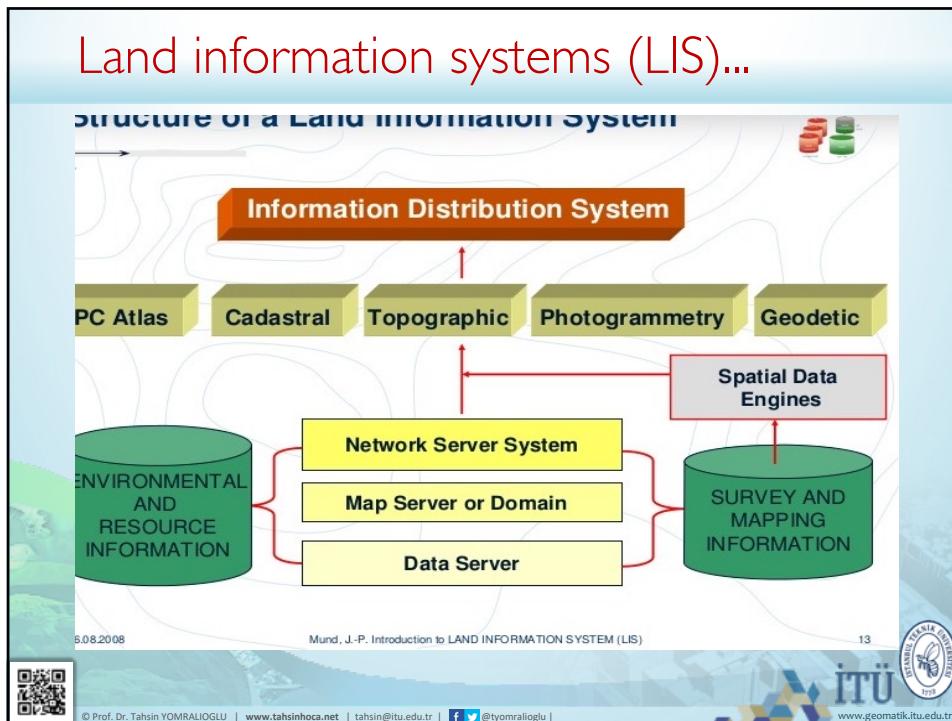
LIS, by helping to establish the necessary system for the management of land information, help to develop land policies much faster and healthier based on country and region. In general terms, LIS contributes to the planned development, presents land information to potential users with technology support at the decision-making stage for all kinds of investments in the land, and ensures that the existing property structure becomes much more efficient and improves.

The diagram shows a stack of ten layers representing different components of a LIS:

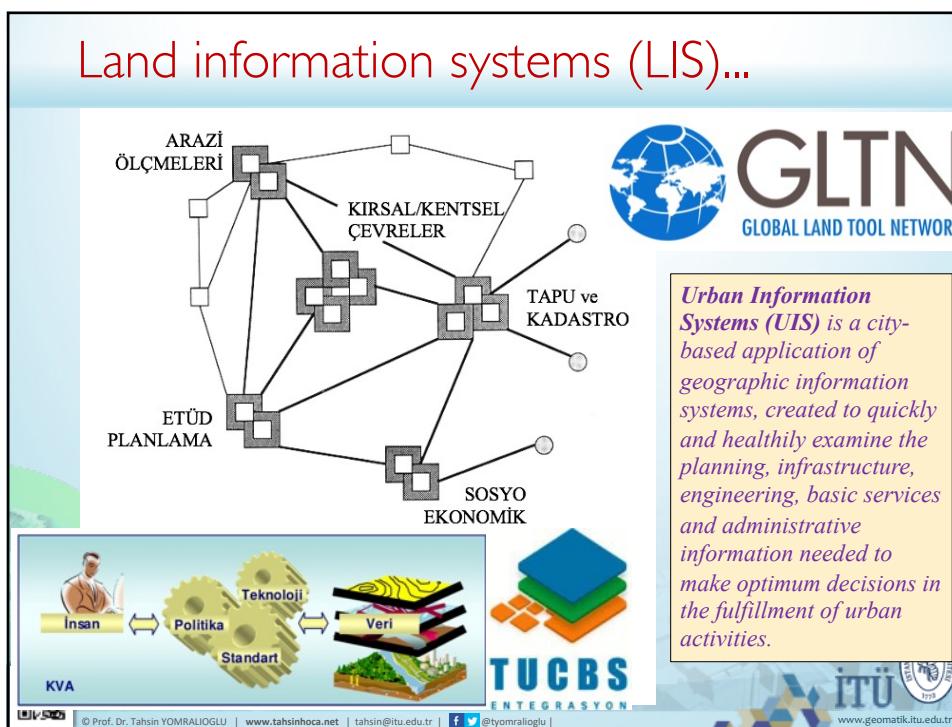
- Cartographic presentation:** Master title plans (land status maps) derived from parcel geometry and land status lines and annotation.
- Administrative areas:** Management district maps derived by dissolve operation or parcel relationships.
- Parcel related uses:** Restrictions on the land built from parcel information.
- Rights and interests:** Land status maps derived from coordinate geometry, digitization, and conversion.
- Ownership parcels:** Master title maps (master title plan) from legal description fabric and land status records.
- Legal description fabric:** PLSS and special survey sub-division boundaries.
- Corners and record boundaries:** Survey and control diagrams.
- Survey fabric:** Add survey plots created from field surveys or converted survey data.
- Vector reference:** Map background.
- Digital orthophotography:** Map background.

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THANKYOU...

Prof. Dr. Tahsin YOMRALIOĞLU

ITU GEOMATİK

www.tahsinhoca.net | tahsin@itu.edu.tr | [@tyomralioğlu](#)

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