

Satellite Data Information System (SDIS)

Satellite Data Information System (SDIS) is a web application that allows user to search the data on the basis of various satellite parameters and spatial extent. It also has functionality of searching Cartosat1 Ortho / DEM and Toposheets (digital and physical).

On clicking **Search Satellite Data** user can search the data based on following options.

1. Satellite Data Type

- Optical**
- Microwave**

2. Attribute Query

Options for Optical data

- Local ID** (Unique id of data, it can be entered in range)
- Satellite** (Select name of satellite, example: IRS-R2, CARTOSAT2 etc)
- Sensor** (Select sensor, example: AW, L4 etc)
- Date of Pass** (Enter from and to date)
- Path** (Enter from and to path number)
- Row** (Enter from and to row number)

User can select above parameters in combination and filter the data.

Filter: by selecting filter button satellite data satisfying selected condition will be listed.

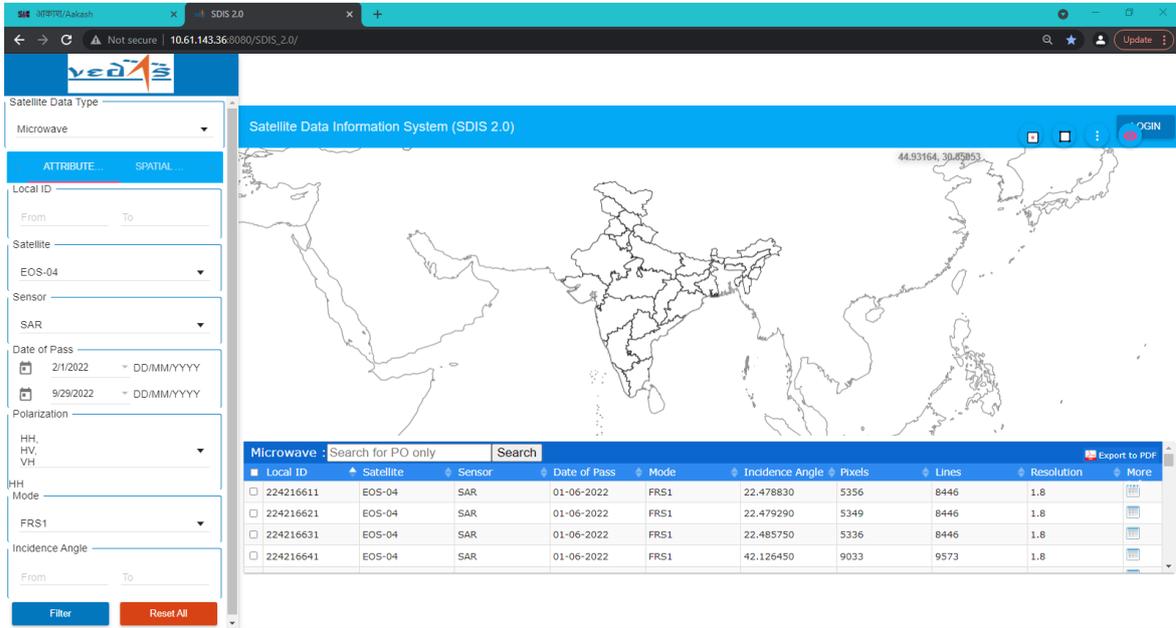
Reset All: by selecting Reset All button sets the page to its initial state, i.e. without any query parameters.

Local ID	Satellite	Sensor	Date of Pass	Path	Row	Quad	Pixels	Lines	Resl	More	Preview
<input type="checkbox"/> 214006211	IRS-R2	L4	01-09-2021	91	55	A	17808	16650	5		
<input type="checkbox"/> 214006221	IRS-R2	L4	01-09-2021	91	55	C	17819	16634	5		
<input type="checkbox"/> 214006231	IRS-R2	L4	01-09-2021	91	56	A	17832	16619	5		
<input type="checkbox"/> 214006241	IRS-R2	L4	01-09-2021	91	56	C	17842	16605	5		

Options for Microwave data

- Local ID** (Unique id of data, it can be entered in range)

- b. **Satellite** (Select name of satellite, example: RISAT-1, EOS-04 etc)
- c. **Sensor** (Select sensor, example: SAR)
- d. **Date of Pass** (Enter from and to date)
- e. **Polarization** (Example: HH, HV, VV etc)
- f. **Mode** (FRS1, MRS etc)
- g. **Incidence Angle**



3. Spatial Query

Spatial Query retrieves satellite data satisfying spatial extent based on any one of the following criteria:

- a. **City**: where user can type the city name in text box or select city from combo box.
- b. **Point**: where user can provide Latitude and Longitude of the point in degree decimals.
- c. **Rectangular Extent**: by providing top-left and bottom-right corners in decimal degrees.
- d. **SOI Toposheet**: open Series Map (OSM) or Defence Series Map (DSM) of Survey of India (SOI).
- e. **Administrative Boundaries**: select State, District and Taluka.

User can select above parameters in combination from attribute query and spatial query and filter the data.

Satellite Data Information System (SDIS 2.0)

Optical

ATTRIBUTE QUERY SPATIAL QUERY

Select Spatial Type

Administrator Boundaries

State

Gujarat

District

Ahmedabad

Taluk

Ahmadabad City

Filter Reset All

Optical : Search for PO only Search

Local ID	Satellite	Sensor	Date of Pass	Path	Row	Quad	Pixels	Lines	Resl	More	Preview
<input type="checkbox"/> 5028	IRS-P4	OCM	07-05-2005	9	13		4580	3899	360		
<input checked="" type="checkbox"/> 5089	IRS-1D	L3	28-10-1999	93	56		6275	5996	24		
<input type="checkbox"/> 5147	IRS-P4	OCM	04-09-2000	9	13		4577	3897	360		
<input type="checkbox"/> 5237	IRS-P4	OCM	08-10-2000	9	13		4545	3903	360		

4. Other options

a. Sorting

User can sort (ascending / descending) the data based on any satellite parameters by clicking on the title of desired parameter. (Example: sort on **Date of Pass**)

Satellite Data Information System (SDIS 2.0)

Optical

ATTRIBUTE QUERY SPATIAL QUERY

Local ID

From To

Satellite

IRS-R2

Sensor

AW

Date of Pass

7/1/2021 MM/DD/YYYY

9/29/2022 MM/DD/YYYY

Path

From To

Row

From To

Filter Reset All

Optical : Search for PO only Search

Local ID	Satellite	Sensor	Date of Pass	Path	Row	Quad	Pixels	Lines	Resl	More	Preview
<input type="checkbox"/> 213241141	IRS-R2	AW	01-07-2021	93	57	C	8661	7988	56		
<input type="checkbox"/> 213241101	IRS-R2	AW	01-07-2021	93	52	A	8703	8193	56		
<input type="checkbox"/> 213241181	IRS-R2	AW	01-07-2021	93	52	C	8640	7978	56		
<input type="checkbox"/> 213241191	IRS-R2	AW	01-07-2021	93	52	B	9014	8312	56		

b. More

User can see more details of parameters by selecting icon listed under **More** column.

The screenshot shows the SDIS 2.0 interface with a sidebar on the left containing filters for Satellite Data Type (Optical), Local ID, Satellite (IRS-R2), Sensor (AW), and Date of Pass (7/1/2021). The main area displays a map of India and a table of satellite data. A pop-up window for Local ID: 2132411101 shows the following parameters:

Parameters	Values	Parameters	Values	Parameters	Values
Left Top Longitude	70.992529	Left Top Latitude	31.420192	Right Top Longitude	75.037059
Right Top Latitude	31.40772	Left Bottom Longitude	70.020732	Left Bottom Latitude	27.265969
Right Bottom Longitude	73.905834	Right Bottom Latitude	27.284274	Band	2345
Gain		Sun Azimuth	103.03442	Sun Elevation	69.77462

c. Preview

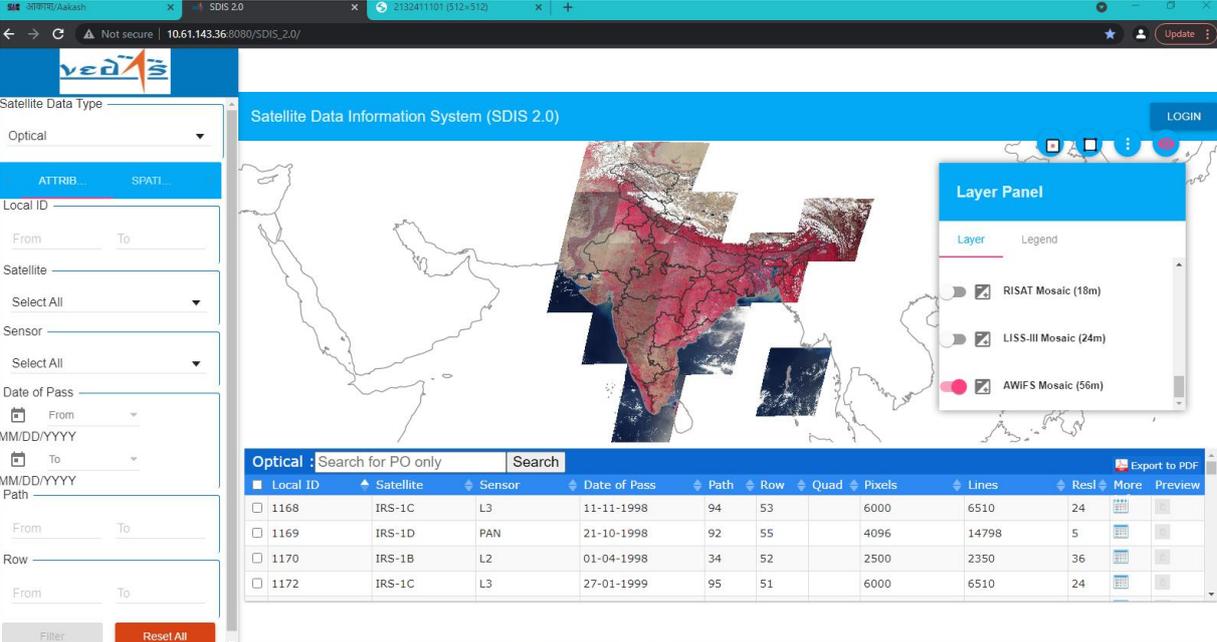
For preview of particular satellite data, user can click on the icon under **Preview** column and thumbnail for the same will be displayed.

The screenshot shows the SDIS 2.0 interface with a sidebar on the left. The main area displays a map of India and a table of satellite data. A preview window is overlaid on the table, showing a satellite image of a region. The table below the preview shows the following data:

<input type="checkbox"/>	2132925141	IRS-R2	A					9741	8151	56	
<input type="checkbox"/>	2132925131	IRS-R2	A					9179	8312	56	
<input type="checkbox"/>	213292541	IRS-R2	AW	06-07-2021	94	57	B	8877	8046	56	
<input type="checkbox"/>	213292521	IRS-R2	AW	06-07-2021	94	62	B	8784	7991	56	
<input type="checkbox"/>	2132925101	IRS-R2	AW	06-07-2021	94	47	D	9088	8385	56	
<input type="checkbox"/>	213292571	IRS-R2	AW	06-07-2021	94	52	C	8644	7981	56	

d. Icons

	<p>Draw Point</p>
	<p>Draw Extent</p>
	<p>Layer Panel : User can display reference layers by selecting Layer Panel from top right menu (three dots) from drop down list (Airports, Cities/Towns, Railway Stations, Railway Tracks, Rivers/Streams, National Highway, SOI Grid 15 min, SOI Grid 1 degree, Continents, Countries, India State Boundary, District Boundary, Taluka Boundary, Continents (Filled), DEM, Cartosat-I Mosaic (2.5m), RISAT Mosaic (18m), LISS-III Mosaic (24m), AWiFS Mosaic (56m).</p>
	<p>Hide Map: To hide the map</p>



Satellite Data Information System (SDIS 2.0)

Optical : Search for PO only

Local ID	Satellite	Sensor	Date of Pass	Path	Row	Quad	Pixels	Lines	Resl	More	Preview
<input type="checkbox"/> 1168	IRS-1C	L3	11-11-1998	94	53		6000	6510	24		
<input type="checkbox"/> 1169	IRS-1D	PAN	21-10-1998	92	55		4096	14798	5		
<input type="checkbox"/> 1170	IRS-1B	L2	01-04-1998	34	52		2500	2350	36		
<input type="checkbox"/> 1172	IRS-1C	L3	27-01-1999	95	51		6000	6510	24		