

User Guide

IIOE-2 Metadata Portal enables search and discovery of metadata of completed & forthcoming/planned cruises under IIOE-2.

Salient Features:

- ISO 19115 standards compliant representation of metadata information
- GCMD Science Keywords for controlled keyword search
- Spatial, Temporal, Keyword & Free Text Search
- Simple interface for metadata submission, update and search
- Java EE technologies based cross platform solution

The screenshot displays the IIOE-2 Metadata Portal interface. At the top, there is a navigation bar with the text 'Principal Enquiries: JPO Perth Office' and social media icons for Facebook and Twitter. To the right are links for 'Home', 'Sitemap', 'Search', and 'Contact Us'. Below this is a banner area featuring the IIOE-2 logo (2nd International Indian Ocean Expedition 2015-2020) and logos for IOGCOS, UNESCO, and SCOR. A horizontal menu contains links: 'ABOUT IIOE-2', 'GOVERNANCE', 'PARTNERS & INITIATIVES', 'EXPEDITION UPDATES', 'IO BUBBLE', 'DATA INFORMATION', 'DOCUMENTS', and 'MEETINGS'. The 'DATA INFORMATION' link is highlighted, and a breadcrumb trail shows 'You are here: Home | Data Information'. A search bar with a 'search for' button is present. The main content area is divided into 'Additional Options' and 'Search Results'. The 'Additional Options' section includes a 'Keyword(s):' dropdown menu with 'Earth Science', 'Earth Science Services', and 'Space Science' selected, and expandable sections for 'Spatial Extent:', 'Temporal Extent:', and 'Filter By:'. A 'Refine Results' button is at the bottom of this section. The 'Search Results' section lists three results: 'IIOE-2 Cruise No.3', 'IIOE-2 Cruise No.2', and 'IIOE-2 Cruise No.1', each with 'View Metadata' and 'Access Data' links. A status message indicates 'Displaying 1-3 of 3 Results'. The footer contains 'Copy Right © www.IIOE-2.incois.gov.in' and 'Disclaimer | Feedback'.

Fig 1: IIOE-2 Metadata Portal

Search Interface

The search interface is used to search for relevant cruises under IIOE-2 by using free text or simple keywords such as parameters, sensors, instruments, locations etc. GCMD Science keywords directory is used for controlled search of keywords. The results can also be filtered based on organization, personnel, place/location, start date & end date and spatial extent (Bounding Box).

The search interface is divided mainly into two sections. The Left section consists of Additional Options to filter your search results based on various search criteria such as GCMD Keywords, Spatial Extent, Temporal Extent, Organization, Personnel, Place/Location. The Right section displays the relevant cruises (Search Results) based on the search criteria selected in the left section. The search interface also contains text-field for free text search.

Free Text Search:

The search interface allows free text search of IIOE-2 cruises. Enter the free text search terms / phrases (Example:- CTD Profiles) in the text field provided on the top and click on "search for" button as shown in below figure. The relevant cruises referring the entered free text search term/phrase will be displayed in the Search Results section.

The screenshot displays the IIOE-2 website's search interface. At the top, there is a navigation bar with links for Home, Sitemap, Search, and Contact Us. Below this is a header section with logos for IIOE-2, GOS, and SCOR. A main navigation menu includes links for ABOUT IIOE-2, GOVERNANCE, PARTNERS & INITIATIVES, EXPEDITION UPDATES, IO BUBBLE, DATA INFORMATION, DOCUMENTS, and MEETINGS. The 'DATA INFORMATION' section is currently active, as indicated by a breadcrumb trail: 'You are here: Home > Data Information'. A search bar at the top of the content area contains the text 'CTD Profiles' and a 'search for' button. Below the search bar, the interface is divided into two columns. The left column, titled 'Additional Options', contains several filter categories: 'Keyword(s)', 'Spatial Extent', 'Temporal Extent', and 'Filter By'. The 'Filter By' section has three checkboxes: 'Organization', 'Person (Principal Investigator etc)', and 'Place/Location'. A 'Refine Results' button is located at the bottom of this section. The right column, titled 'Search Results', displays two results: 'IIOE-2 Cruise No.3' and 'IIOE-2 Cruise No.1'. Each result has links for 'View Metadata' and 'Access Data'. Below the results, it states 'Displaying 1-2 of 2 Results'.

Fig 2: Free Text Search

Keyword Search:

The search interface allows keyword search based GCMD Science Keywords. Click on Keyword(s) tab displayed on the left section. Select the required GCMD science keywords by checking the corresponding check-boxes shown beside the keyword terms (Example:- Sea Surface Temperature) as shown in below figure. The GCMD science keywords are displayed hierarchically in a tree structure. Expand the relevant nodes of the tree structure by clicking on the small triangle displayed beside each node. Multiple keywords can be selected and the selected keywords are displayed below in the same tab. Click on "Refine Results" button as shown in below figure. The relevant cruises referring the selected keywords will be displayed in the Search Results section.

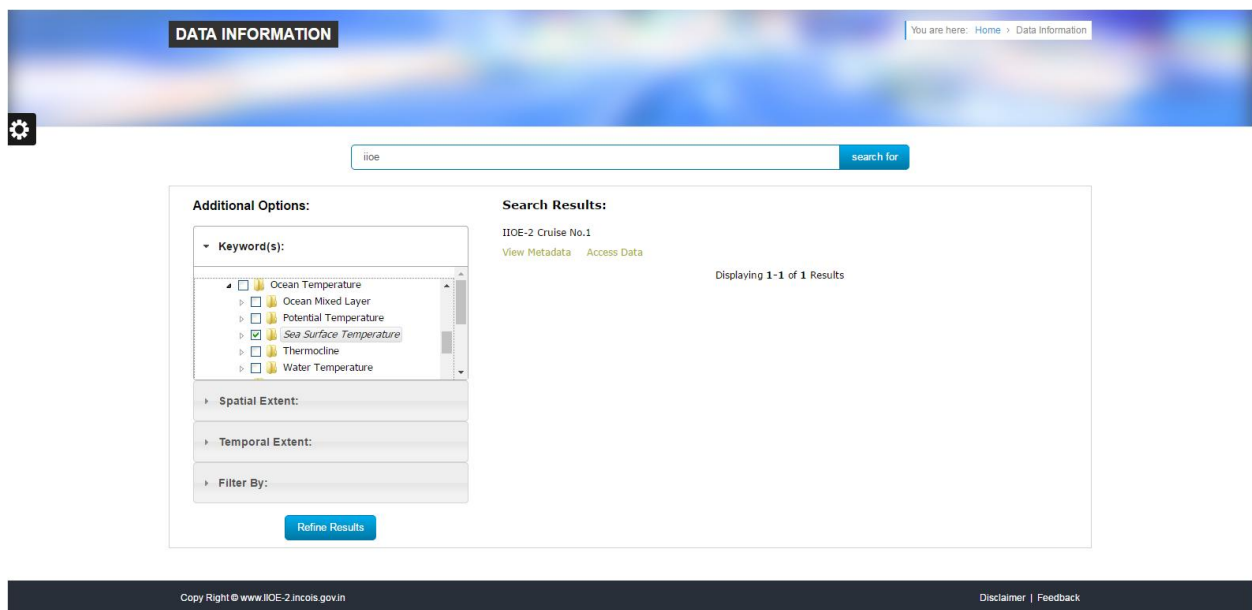


Fig 3: Keyword Search

Spatial Search:

The search interface allows search for IIOE-2 cruises whose spatial extent intersects with the specified bounding box drawn on map. Click on Spatial Extent tab displayed on the left section. The required bounding box can be entered either by drawing on the map or by entering the North, South, East and West coordinates of the spatial extent in the corresponding text fields as shown in below figure. Click on "Draw a bounding box" button displayed on top right corner of the map to enable drawing of bounding box on the map. Click and drag the mouse on the required region of the map and release the mouse to finish the drawing of the bounding box. The North, South, East and West coordinates of the drawn bounding box are entered automatically in the text fields below. Click on "Refine Results" button as shown in below figure.

The relevant cruises referring the selected spatial extent will be displayed in the Search Results section.

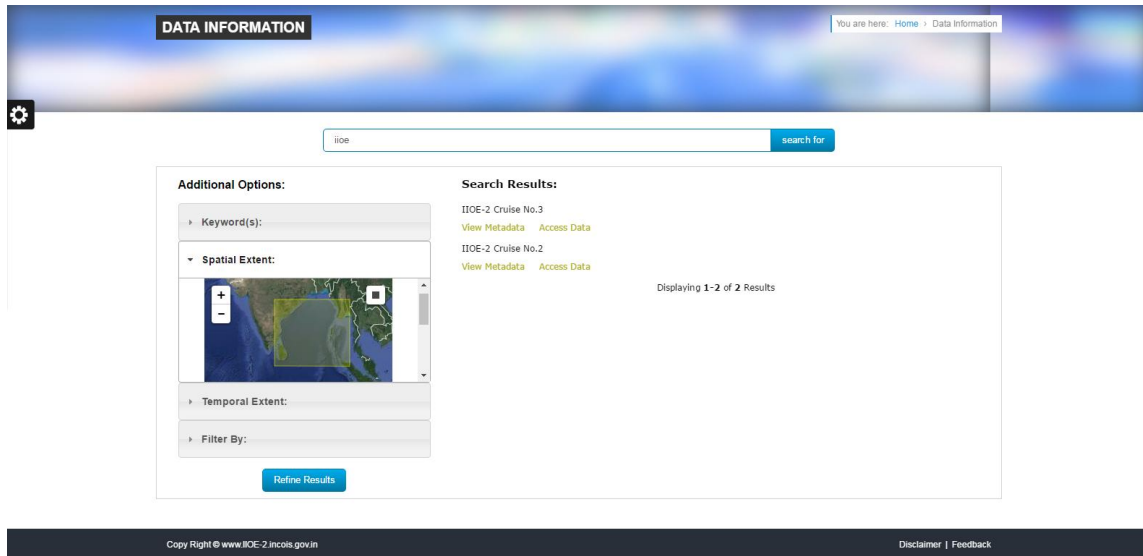


Fig 4: Spatial Search

Temporal Search:

The search interface allows search for IIOE-2 cruises whose temporal extent (Start & End dates) intersects with the specified temporal extent (Start & End dates). Click on Temporal Extent tab displayed on the left section. Enter the Start and End dates in the corresponding text fields as shown in the below figure. Click on "Refine Results" button. The relevant cruises referring the selected temporal extent will be displayed in the Search Results section.

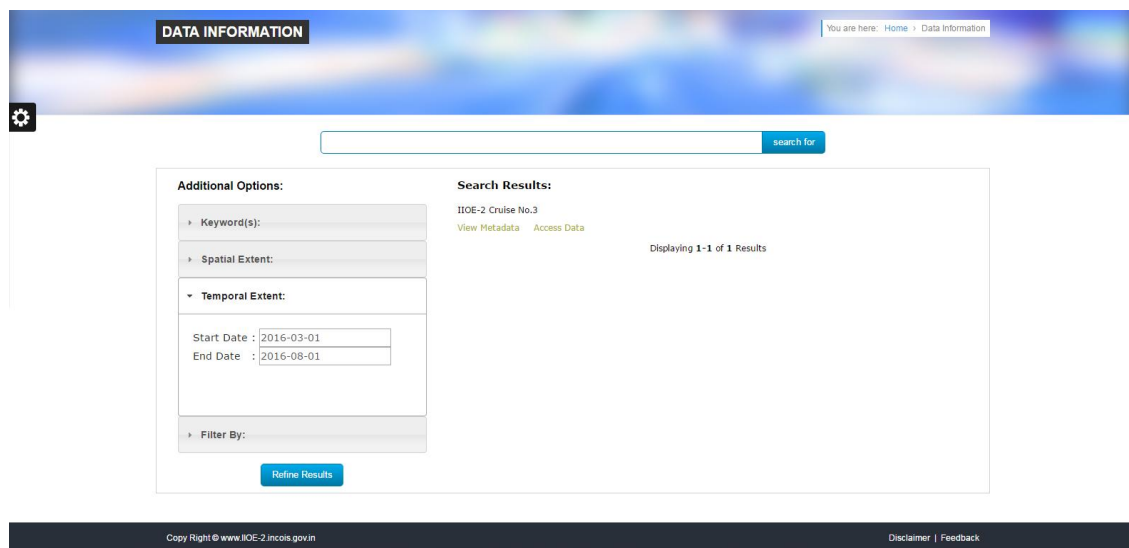


Fig 5: Temporal Search

Filter by Organization, Personnel & Place/Location:

The search interface allows to filter IIOE-2 cruises based on organization, person and place/location. Click on "Filter by" tab displayed on the left section. Select the search criteria by the checking the corresponding check-box shown beside each criteria. Enter the required search term (Example:- Place/Location - arabian sea) in the corresponding text field as shown in the below figure. Click on "Refine Results" button. The relevant cruises referring the selected search criteria will be displayed in the Search Results section.

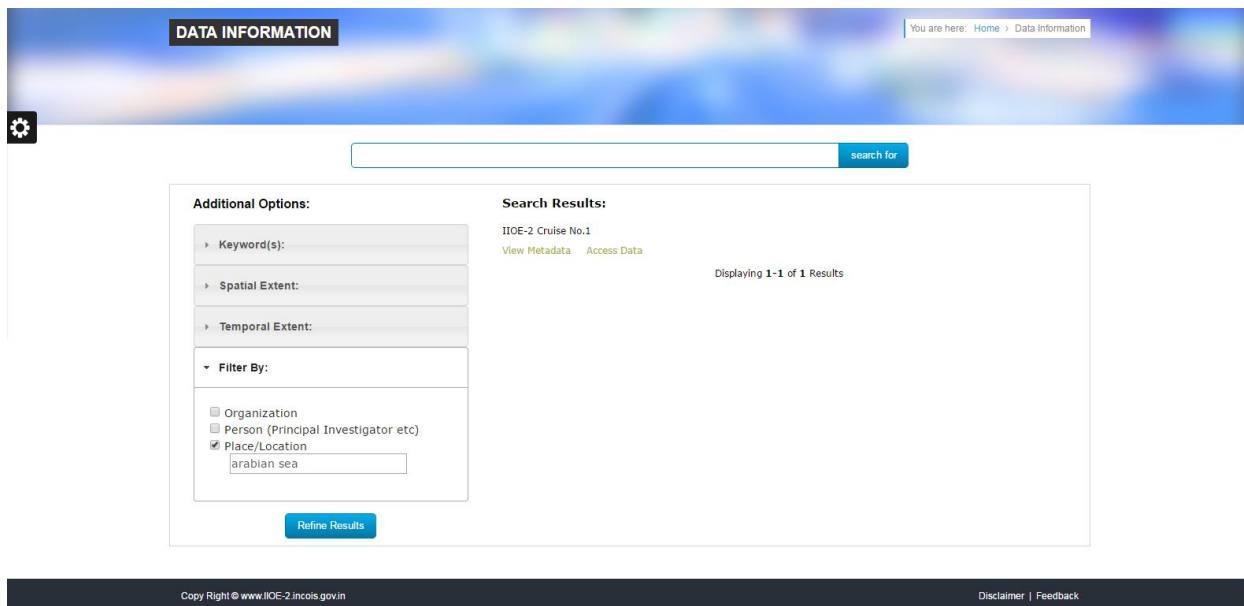


Fig 6: Filter By Organization, Person, Place/Location

View Metadata and Access data:

The search results displayed on the right hand side include titles of relevant cruises, link to view detailed metadata of corresponding cruise and link to access data of corresponding cruise. Click on "View Metadata" to view detailed metadata of selected cruise. Click on "Access Data" to access data of corresponding cruise.

The Search interface also represents metadata of selected cruise in ISO 19115-2 XML format. To view the metadata in ISO format click on "ISO 19115-2 Metadata (XML)" link given on the top right corner of detailed metadata page as shown in below figure.

ISO 19115-2 Metadata (0ML)

IOIE-2 Cruise No.3

Access URL: <http://www.ioie-2.incois.gov.in/>

Alternate Title: ORV SAGAR KANYA Cruise No SK-327

Brief Description (Abstract):

The Second International Indian Ocean Expedition (IOE-2) is a major global scientific program which will engage the international scientific community in collaborative oceanographic and atmospheric research from coastal environments to the deep sea over the period 2015-2020, revealing new information on the Indian Ocean (i.e. its currents, its influence upon the climate, its marine ecosystems) which is fundamental for future sustainable development and expansion of the Indian Ocean's blue economy. A large number of scientists from research institutions from around the Indian Ocean and beyond are planning their involvement in IOE-2 in accordance with the overarching six scientific themes of the program. Already some large collaborative research projects are under development, and it is anticipated that by the time these projects are underway, many more will be in planning or about to commence as the scope and global engagement in IOE-2 grows. IOE-2 Cruise No 3 is dedicated to the recovery and deployment of RAMA Buoys & NIOOT Omni & Tsunami Buoys in the Indian Ocean. Conductivity, Temperature, and Depth (CTD) casts were made up to 1000 meters depth at all the RAMA Buoy and NIOOT Buoy locations and also water samples were collected at various depths and validated the conductivity value with Autosal.

Status: Completed

Purpose: Recovery and deployment of RAMA Buoys & NIOOT Omni & Tsunami Buoys

Presentation Format: Table/Digital

Distribution Format: Unknown

Distribution Format Version: Unknown

Supplemental Information:

Summary of the scientific works done during cruise SK-327: * 3 RAMA (1 ATLAS PCo2 & 2 ATLAS) buoys were recovered & deployed. * Conductivity-Temperature-Depth (CTD) profiles were taken at RAMA buoy and NIOOT Buoy locations. * Collected 7 water samples in RAMA buoy locations at various depths for validating the conductivity of onboard CTD System.

Keywords(s): Earth Science-Oceans-Salinity/Density-Conductivity, Earth Science-Oceans-Ocean Temperature-Water Temperature,

Place/Location(s): Bay of Bengal,

Project: IOE-2,

Topic Category(s): Oceans,

Date(s): 2016-07-25 (Publication),

Resource Contact(s):

1. Name : Dinesh K
Role : Principal Investigator
Phone : 0402388088
E-Mail : dinesh@incois.gov.in
Organization Name : Indian National Centre for Ocean Information Services (INCOIS)
Address : Ocean Valley, Pragathi Nagar (BO), Nizampet (BO)
City : Hyderabad
State : Telangana
Postal Code : 500090
Country : IND

Distributor Contact(s):

1. Name : Dr S. Rajan
Position : JPO INDIA IOE-2 Coordinator
Role : Distributor
Phone : +91-40-23886142
E-Mail : ioie-2@incois.gov.in
Organization Name : Indian National Centre for Ocean Information Services (INCOIS)
Address : Ocean Valley, Pragathi Nagar (BO), Nizampet (BO)
City : Hyderabad
State : Telangana
Postal Code : 500090
Country : IND

Metadata Contact(s):

1. Name : Dr S. Rajan
Position : JPO INDIA IOE-2 Coordinator
Role : PointOfContact
Phone : +91-40-23886142
E-Mail : ioie-2@incois.gov.in
Organization Name : Indian National Centre for Ocean Information Services (INCOIS)
Address : Ocean Valley, Pragathi Nagar (BO), Nizampet (BO)
City : Hyderabad
State : Telangana
Postal Code : 500090
Country : IND

Extent:

Start Date : 2016-02-13
End Date : 2016-03-14

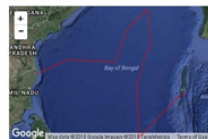


Fig 7: Metadata View

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        The Second International Indian Ocean Expedition (IIOE-2) is a major global scientific program which will engage the international scientific community in collaborative oceanographic and atmospheric research from coastal environments to the deep sea over the period 2015-2020, revealing new information on the Indian Ocean (i.e. its currents, its influence upon the climate, its marine ecosystems) which is fundamental for future sustainable development and expansion of the Indian Ocean's blue economy. A large number of scientists from research institutions from around the Indian Ocean and beyond are planning their involvement in IIOE-2 in accordance with the overarching six scientific themes of the program. Already some large collaborative research projects are under development, and it is anticipated that by the time these projects are underway, many more will be in planning or about to commence as the scope and global engagement in IIOE-2 grows. The first scientific cruise of IIOE-2 on board the Indian Research Vessel Sagar Nidhi was flagged off from the Mormugao (Goa) harbour on the evening of 4th December 2015 by Shri V. S. Chowdhary, India's Minister of State for Science and Technology and Earth Sciences. The expedition led by Prof. P. N. Vinayachandran of Indian Institute of Science (IISc), Bangalore and Dr. Satya Prakash of INCOIS, concluded at Mauritius on 22 December 2015 after 18 days of sustained observation and data collection in the western Indian Ocean enroute to Mauritius. Besides twelve scientists from six national research institutions and the Goa University, there were participants from Mauritius, Israel, Singapore, Australia and the UK. The major goal of this multi-disciplinary scientific expedition was to understand the structure of the water masses in the western Indian Ocean along 67&deg;E longitude and to assess the difference in their characteristics with respect to observations made in the past. The water masses from Red Sea, Persian Gulf and northern Arabian Sea have been observed in this part of the Indian Ocean at different depth layers. Underwater profiles of current, temperature, salinity, oxygen, light and chlorophyll were measured during the cruise. In addition, water samples were collected to a depth of 1000m for various chemical and biological analyses. Samples of zooplankton were collected using nets towed behind the stern of the ship.
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Fig 8: ISO 19115-2 XML format