Search Tips for Searching India Code

India Code has been developed using open source software “DSpace”. It has deployed SOLR search engine through which one can browse, perform simple search and advance search with filter facility.

1. BROWSE

Allows you to go through a list of items in some specified order. One can browse by Community and Collection, Short title, Act number, Act year, Ministry etc.

Fig 1: Browse Menu

For example: following is the screen shot of Browsing through “Ministry”
2. SIMPLE SEARCH

One can type any single word or group of words or phrases which are searched as free text word(s) in metadata as well in full text documents. It may locate those documents wherever these words or phrases may occur in the metadata and full text documents. As a default, SOLR search engine uses ‘AND’ Boolean operator, that is, search results contain all of the terms. For Example:

2.1. Case 1: Search on National Waterways Act as keywords

It shows documents containing National AND Waterways AND Act as search term.
2.2. Case 2: Search on “National Waterways Act” as a phrase

In this case it will search all the documents containing “National Waterways Act” where these words are occurring together.

![Search Results](image)

Fig 4: Search on “National Waterways Act” as a phrase

However, one can further refine the search by using Boolean operators.

3. BROADEN THE SEARCH USING “OR” OPERATOR

3.1. One can broaden the search results using OR operator.

For Example: Railways OR Road

![Search Results](image)

Fig 5: Search on Railways OR Road as search terms

This will search documents that have keywords either Railways OR Road anywhere in the documents.
4. NARROW DOWN SEARCH USING “AND” OPERATOR

4.1. One can narrow down the search by using AND operator.

For Example: Railway AND Maintenance

![Search results](image)

Fig 6: Search on Railway AND Maintenance

This will Search documents that have both the keywords Railway AND Maintenance anywhere in the documents.

5. NEGATION OF SEARCH TERMS USING “NOT” OPERATOR

5.1. In this case, user does not want to have certain terms in the search results. It can be achieved by using “NOT” operator.

For Example: To search Export NOT Agriculture

Step 1: Simple search on Export
Step 2: Search on Export NOT Agriculture

This will search those documents that have Export but not containing Agriculture in them.
SEARCH USING COMBINATION OF OPERATORS

6. “AND” and “OR” combination

For Example: (Ministry of Human Resource Department) AND (Information Technology) OR 2014

In this, search is performed by combining AND/OR operators.

Step 1: Simple search on (Ministry of Human Resource Department)

Fig 9: Search on (Ministry of Human Resource Department)

Step 2: Search on (Ministry of Human Resource Department) AND (Information Technology)

Fig 10: Search on (Ministry of Human Resource Department) AND (Information Technology)
Step 3: Search on (Ministry of Human Resource Department) AND (Information Technology) OR 2014

Fig 11: Search on (Ministry of Human Resource Department) AND (Information Technology) OR 2014

This will show those documents that have any of Ministry of Human Resource Department AND Information Technology OR 2014 in them.

7. “AND” and “NOT” COMBINATION

For Example: (Ministry of Human Resource Department) AND (Information Technology) NOT 2014

In this, search is performed by combination of AND/NOT operators.

Step 1: Simple search on (Ministry of Human Resource Department)
Fig 12: Search on (Ministry of Human Resource Department)

Step 2: Search on (Ministry of Human Resource Department) AND (Information Technology)

Fig 13: Search on (Ministry of Human Resource Department) AND (Information Technology)

Step 3: Search on (Ministry of Human Resource Department) AND (Information Technology) NOT 2014
8. “OR” AND “NOT” COMBINATION

For Example: Research OR Development NOT Agriculture

In this, search is performed by combination of OR/NOT operators.

Step1: Simple search on Research
Step 2: Search on **Research OR Development**

![Search Results](image1)

**Fig 16: Search on Research OR Development**

Step 3: Search on **Research OR Development NOT Agriculture**

![Search Results](image2)

**Fig 17: Search on Research OR Development NOT Agriculture**

This will show those documents that have any of Research OR Development NOT Agriculture in them.
9. SEARCH WITH FILTERS

SOLR search engine provides facility to apply search filters to limit the search results to specific fielded search criteria.

Filter search has three components such as **Field Name, Filter Operators and Field Value**.

**Field Name:** It is the metadata fields such as Short Title, Act Number, Act year, Ministry etc. which can be selected from combo box.

**Filter Operators:** It provides various search filter operators such as “Contains” “Not Contains” “Equals” “Not Equals” which can be selected from combo box.

**Field Value:** Users has to type value for the field name. It also provides auto completion facility.

For Example:

9.1. Search on **National** has been performed as a free text search.

![Fig 18: Filter Simple search on National](image)

Search can be refined using search filters. Here search term **“National”** will be searched with Search field **“Ministry”** with Search Filter as **“contains”**. Screen shot of search is shown in fig19.
Fig 19: Filter search on term National with Search field as “Ministry” and with Search Filter as “contains”

9.2. Search can further refine using “Act year” as search filter. Screen shot of search is shown in fig 20.

Fig 20: Filter search on 1968 in Act year field.
10. SOME MORE EXAMPLES USING VARIOUS SEARCH FIELD OPERATORS

10.1. Contains Search Operator

It searches word or phrase present anywhere in the field.

For Example: If you have to search National having department as Higher Education using “CONTAIN” field operator:

![Fig 21: Search results using “CONTAIN” as field operator](image)

10.2. Not Contains Search Operator

It searches word or phrase does not exist anywhere in the field.

For Example: If you have to search National documents and doesn’t contain Higher Education as department.
10.3. Equals Search Operator

It searches exact match of word or phrase in the field. For Example: If you have to search documents of Education of year 2009.

10.4. Not Equals Search Operator

It searches for documents with other than where there is an exact match of word or phrase in the field. For Example: If you have to search documents of Education of all year but not 2009.
Fig 24: Search results using “NOT EQUAL” as field operator.

One can filter and customize search results by using the option “Add Filter” on the advance search page. Many search filters can be added by clicking “Add” button.

**NOTE:**
For specific search use simple search and then use filters to further refine search results and get specific information.

### 11. WILD CARD SEARCHES

One can also search multiple character as wildcard search by using asterisk “*” symbol.

For Example: to search for “Nation”, “National”, “Nationals” One can use the search as Nation*
One can also use the wildcard in the middle of a term.

Example: Nati*n.

12. FUZZY SEARCHES

Fuzzy search is the technique of finding string that match a pattern approximately, rather than exactly. One can do a fuzzy search using the tilde “~” symbol at the end of the Single word term.

For Example: To search for word similar in spellings to “Role” one can do the fuzzy search: role~

This search will find terms like rome, rola, rale, pole, gole etc.

Here in this example Nation~ searches words like “National”.

Fig 25: Search results of Nation*
**Fig 26:** Search results of Nation~