

CAPACITY BUILDING RESOURCES GATEWAY



NASA
INTERNATIONAL
SPACE APPS
CHALLENGE

The Challenge

Earth Observations (EO) can help policymakers around the world make more informed decisions to address natural disasters, land management issues, the impacts of climate change, and other environmental issues. However, policymakers and community members first need to develop the capacity (knowledge and skills) to use EO in their work. Your challenge is to create a user-friendly virtual gateway of capacity-building resources that will help professionals of all levels and disciplines find the training they need to apply EO.

Objectives

Your challenge is to create a user-friendly online gateway of capacity-building resources that will help both beginners and advanced professionals find the training they need to apply EO. Your gateway will need to address the needs of a variety of communities; think about how you can include as many EO and remote sensing training resources as possible (hint: the Resources tab for this challenge is a great place to start!). How will gateway users navigate and find the right capacity-building resources based on their needs and interests?

THE GATEWAY

This is the gateway. Use it to find info and training relevant to you.

What is your role?

☐ General Public

☐ Intern

☐ Subject Matter Expert

☐ Decision Maker

☐ Policy Maker

☐ EO Researcher

☐ Citizen Scientist

☐ Data Analyst

☐ Other

What topic areas do you want to learn about?

☐ Capacity Building

☐ Disaster Readiness

☐ Ecological Forecasting

☐ Health & Air Quality

☐ Water Resources

☐ Wildlife Readiness

☐ Sustainable Development

☐ Food Security

☐ Biodiversity and Ecosystem Sustainability

☐ Public Health

☐ Climate

☐ Air Quality

What resources are you looking for?

apis

tutorials

calendars

data sets and databases

training classes

THE GATEWAY

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Resources

ID	123
Type	Course
Name	Winter-Water-Warming: Canadian SAR Applications
Author	EO College
Rating	4.5/5
Description	From the course description: "In this course, we will introduce you to how Canadians research, develop and utilize radar remote sensing technology for mapping and environmental monitoring."
Credits	<ul style="list-style-type: none">• RADAR warrior• Skilled beginner• Climate carer
Tags	<ul style="list-style-type: none">• Capacity Building• Water Resources• Climate• Ecological Forecasting

[Submit a review for this resource...](#)

The gateway portal would offer users with a way to quickly and efficiently filter EO resources.

The primary pivots of resources surfaced in the gateway would be:

- User role
- Topics of interest

Said filters would be stackable – thus, a user can filter both on multiple roles and topics of interest.

Portal landing page and 1-up view of a single resource.

ADDING NEW RESOURCES

When new courses, calendars, data sources, or the like are available and are to be added to the portal catalog, there should be a programmable interface that can accept structured data that would be used to describe the resource.

Resource submitters will be expected to provide the appropriate tags and target role/audience for each resource submitted.

```
{  
  "id": 123,  
  "resourceType": "course",  
  "name": "Winter-Water-Warming: Canadian SAR Applications",  
  "author": "EO College",  
  "description": "In this course, we will introduce you to how Canadians research, develop and utilize radar remote sensing technology for mapping and environmental monitoring.",  
  "rating": 4.5,  
  "tags": [  
    "climate",  
    "ecological forecasting",  
    "water resources"  
  ],  
  "roles": [  
    "general public",  
    "intern"  
  ],  
  "languages": [  
    "en",  
    "fr"  
  ]  
}
```


IMPROVEMENTS TO SPACE AGENCY DATA



While completing this challenge, one resource referenced as an example of a EO capacity planning portal was the NASA Earth Science Applied Science website, <https://appliedsciences.nasa.gov/>.

On this site's landing page, they break down resources into nine major groups. It's only by navigating into the informational landing page of the 'capacity building' group/area and exploring the ARSET initiative heading that direct training resources are visible.

Additionally, once on the ARSET landing page (<https://appliedsciences.nasa.gov/what-we-do/capacity-building/arset>), a user must click on a sub-area on the right nav in order to get to a searchable, filterable view of ARSET courses.

Aside from user navigation improvements (making it take fewer clicks and more discoverable to get to ARSET listings), tags, relevant roles, and course ratings could be surfaced over course 'levels' for ARSET training listings, in order to make it easier for users to decide whether a training is relevant to them.

EXAMPLE CONTENT SOURCES

APPLIED REMOTE SENSING TRAINING PROGRAM

ARSET

Earth Observing Dashboard



Global environmental changes observed by NASA, ESA, and JAXA



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Nations**

Office for Outer Space Affairs
UN-SPIDER Knowledge Portal



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college