

-A Multi-GNSS Asia Programme-

2023

RPD
Challenge

SOLUTIONS FOR

NATURAL HAZZARDS

Co-organised by



Supported by



Date/Time (Thai Local Time)

Course Overview



Open Registration

**Deadline
31 Oct 2023**

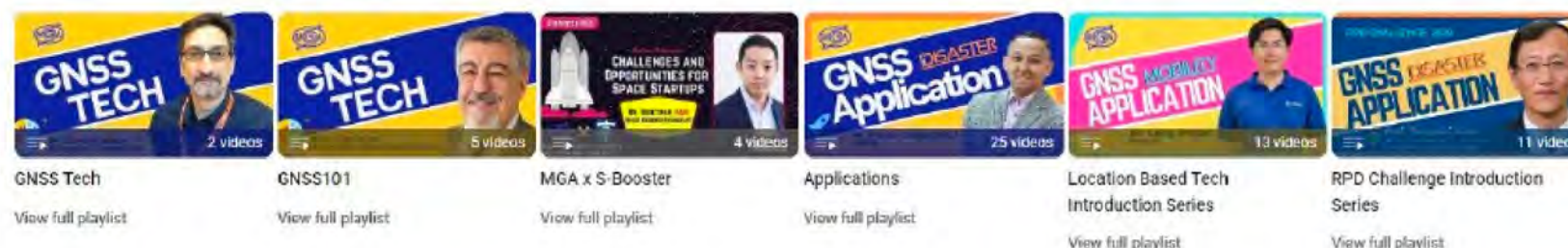
Free Registration on RPD Website <https://www.rpdchallenge.com>



GNSS Introduction
Online Streaming

Now – 30 Nov 2023

GNSS Lecture on MGA Chanel <https://www.youtube.com/@MultiGNSSAsia/playlists>



Online lecture

9 Dec 2023 : 10:00 – 12.00

Tutorial Session : Course Introduction + Kick off Meeting by GISTDA and RPD team + Call ideas

16 Dec 2023 : 10:00-11:00

Online lectures: Lecture and demonstration of SPRESENSE by Sony Group Corporation



Spresense device provided

13 Jan 2024 : 10:00-12:00

Online lectures: Lecture and demonstration of SPRESENSE by Sony Group Corporation+University of Tokyo

20 Jan 2024 : 10:00-11:00

Online lectures: Overview of Early Warning Service System by Advanced Institute of Industrial Technology



STEP 01

29th Jan 2024 : All Day

Define Scenario and Ideas Creation

STEP 02

30th Jan 2024 : All Day

Project Planning and design of System



STEP 02-03

31st Jan 2024 : Afternoon

System Design and Proof of Concept preparation + Sample command testing with devices (POC)

MGA Conference 2023

STEP 03

1st Feb 2024 : Afternoon

Pre-Final / PoC presentation



STEP 04

10 or 11 February

Online Lecture: Advanced Lecture of Early Warning Service System by Prof. Keiko Shimazu

24 February

Trouble Shooting or Final Consultation date and 2nd Sample command testing) (each time meet experts)

March

Final Presentation



GENERAL INFORMATION



What is the RPD Challenge?

The Rapid Prototype Development (RPD) Challenge is a hands-on Hackathon where teams will create a prototype with limited resources. Mentors will give valuable guidance and encourage participants to squeeze their brains to tackle real-life issues through creative solutions.

10 teams (max) will be able to participate. Join either as a Team or as an individual!

QUALIFICATION

Undergraduate, Graduate Students, Researchers, Industry, Policy and Decision Makers from Asia and Oceania Regions.

REGISTRATION

Register from the link below:
<https://www.rpdchallenge.com>
For any inquiries, contact
secretariat@multignss.asia

BRING YOUR IDEAS TO LIFE

- THE STEPS



1 IDENTIFY ISSUES

2 DESIGN CONCEPT

3 DESIGN SYSTEM

4 ASSEMBLE & DEMO



IDEA CREATION

IDENTIFY ISSUES

- 1 What are potential issues arising from social issues, and what infrastructure already exists?



DESIGN CONCEPT

- 2 Work with your team and mentors and design your concept.

PROTOTYPE CREATION

DESIGN SYSTEM

- 3 How can you realise your concept? Think of your device options and design your system.



ASSEMBLE & DEMO

- 4 Assemble the devices and make improvements through tests & demos!

LET'S GET STARTED

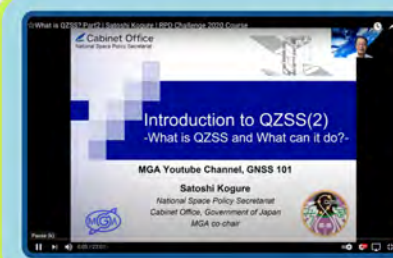
- COURSE INTRO & LECTURES

1. COURSE INTRODUCTION

Get your briefing on the course overview and the planned schedule for the journey ahead!

2. GNSS 101

Learn the basics of positioning satellites and key technologies behind IoT devices through a series of webinars to spark your imagination with food for innovation from leading experts!



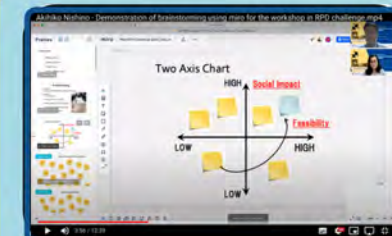
STEP 1 - IDEA & SOLUTION

1. RESEARCH

What alert systems are available in that location?
Do your research and define your target community.

2. IDENTIFY SCENARIO

What devices will be sending/receiving alerts?
Identify your scenario, select your components and map out your plan.



STEP 2 & 3 - DEVELOP PROTOTYPE

1. SYSTEM DESIGN

Design your concept based on your scenario, defining the necessary device, software and datasets.

2. ASSEMBLE & TROUBLE SHOOT

Bring together the necessary components and software to assemble your device. Check the interface and organise a series of tests to make sure the smooth running of your prototype.



STEP 4 - DEMONSTRATION

1. PRESENT & DEMONSTRATE

How will your solution benefit society?
Convince your audience & judges with your concept and demonstrate your team's concept to the audience!

