

WORKSHOP PROGRAMME

0800-0830	Registration
0830-1000	GNSS Surveying with MyRTKnet - Theory, Concept and Application Sr Ahmad Hilmi bin Mohamad Idris (JUPEM)
1000-1030	Tea Break
1030-1200	Orthometric Height Determination using MyGEOID - Theory, Concept and Application Mr. Muhammad Daud bin Mahdzur (JUPEM)
1200-1300	Coordinate Conversion, Datum Transformation and Map Projection Sr Dr. Muhammad Asyran bin Che Amat (JUPEM)
1300-1400	Lunch
1400-1530	HOTS 1: Establishing Horizontal and Vertical Controls using MyRTKnet and MyGEOID
1530-1630	HOTS 2: Coordinate Conversion, Datum Transformation and Map Projection
1630-1700	Tea Break

* HOTS: Hands-On Training Session

Sr Ahmad Hilmi bin Mohamad Idris is the desk officer responsible for the MyRTKnet services at Geodetic Survey Division, Department of Survey and Mapping Malaysia.



Mr. Muhammad Daud bin Mahdzur is the desk officer responsible for the MyGEOID services at Geodetic Survey Division, Department of Survey and Mapping Malaysia.



Sr Dr. Muhammad Asyran bin Che Amat is the desk officer responsible for the coordinate reference systems at Geodetic Survey Division, Department of Survey and Mapping Malaysia.



ARE YOU INTERESTED?

Please fill in your particulars and make a payment of **RM 620.00 (RISM members)** or **RM 750.00 (non-members)** to the following account. These particulars and payment slip must be faxed to **RISM at 03-79550253** before **15 April 2019** to secure your place at the workshop.

Account Name : ISM (LS SECTIONAL)
Bank : Hong Leong Bank (HLB)
Account No : 030-0000-9895

Please note that the registration is based on the first-come-first-served basis. Cancellation will only be accepted in writing 5 days in advance.

Registration:

Name :

IC No. :

RISM Membership No. :

Company / Agency :

Address :

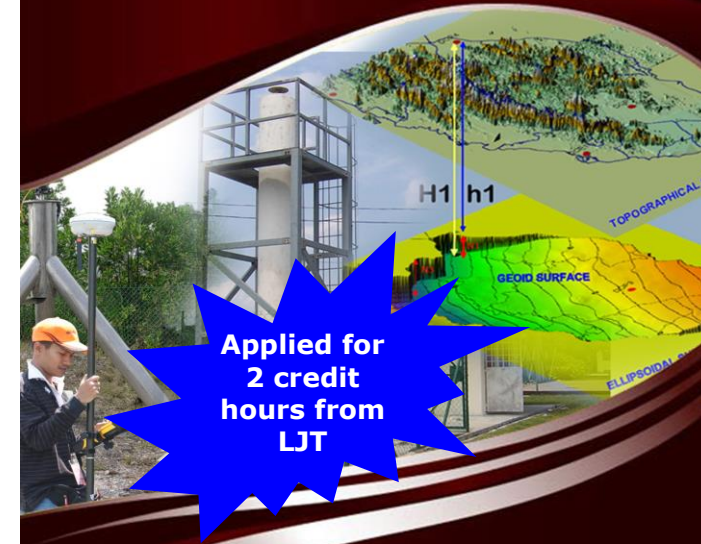
Telephone No. :

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Workshop on GNSS SURVEYING AND HEIGHTING WITH MyRTKnet AND MyGEOID



Applied for
2 credit
hours from
LJT

DE PALMA HOTEL
AMPANG, KUALA LUMPUR
18 APRIL 2019

Organised and Supported by:



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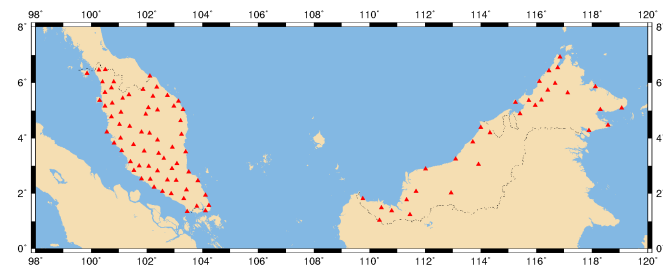
“ Jointly organised by Lembaga Jurukur Tanah (LJT), Geomatic and Land Surveying Division, Royal Institution of Surveyors Malaysia (RISM), Pertubuhan Jurukur Tanah Bertauliah Semenanjung Malaysia (PEJUTA) and Jabatan Ukur dan Pemetaan Malaysia (JUPEM) ”

INTRODUCTION

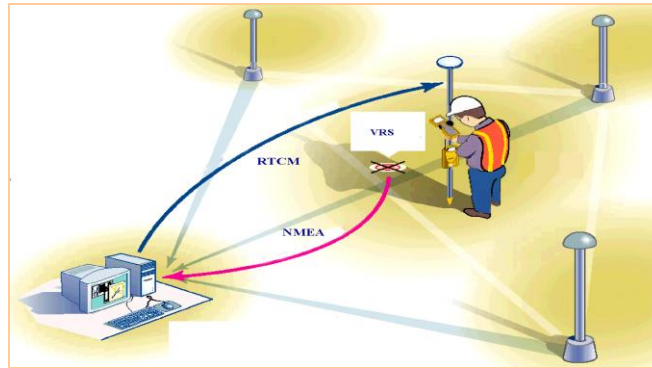
Field surveying in this modern age has never been easier with the aid of geodetic infrastructures established by JUPEM such as the Malaysia Real-Time Kinematic GNSS Network (MyRTKnet) and the Malaysian Geoid Model (MyGEOID). Fieldwork that was once lengthy, laborious, and costly can now be done effectively with just a simple click of a button. While this development is welcome in the surveying community, tapping the fullest benefits from the infrastructures requires proper understanding and knowledge at the users' end.

MyRTKnet was introduced as one of the JUPEM's initiatives to modernise surveying in Malaysia. The completed network of MyRTKnet nowadays included 65 stations in Peninsular Malaysia, 15 stations in Sabah, 15 stations in Sarawak, and 1 station in Federal Territory of Labuan. Among other things, MyRTKnet offers the following services:

1. Real-time corrections
 - VRS
 - MAX
 - iMAX
2. Post-process data
 - Virtual RINEX
 - CORS RINEX



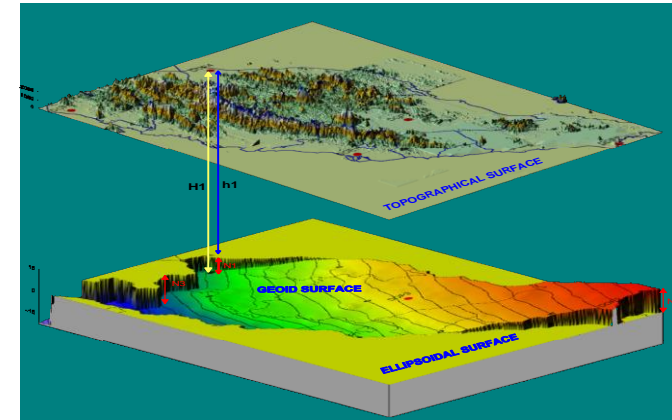
The services have benefited users in various applications including surveying and mapping, navigation, precision agriculture, seismic monitoring and many others. MyRTKnet enables centimetre-level positioning without the need for surveyors to invest in—or setting up—a local reference station. GNSS surveying is now available to every surveyor who can afford a single GNSS unit. It also put all users on the same reference frame, i.e. the Geocentric Datum of Malaysia (GDM2000).



MyGEOID is a local geoid model established by JUPEM with the prime objective to enable conversion between the ellipsoidal height from GNSS observation and orthometric height (or elevation) as used in most surveying and mapping applications. It offers alternative to conventional spirit levelling and has proven to be favourable for the area with no benchmark in the proximity. The model is a product of several data / model integration including airborne and terrestrial gravity data, satellite altimeter data, global geoid model, and digital terrain models.

The geoid model is hybrid, combining gravimetric geoid with datum transformation and GNSS ellipsoid heights on levelled benchmarks. The final model was computed by fitting the gravimetric and geometric geoids - a process to ensure consistency between the height obtained from the conventional spirit levelling and the GNSS-levelling. MyGEOID offers orthometric height determination with accuracy better than 5 cm for the whole Malaysia and better than 1 cm for Klang Valley. Users requiring higher precision may also utilise relative GNSS-levelling using gravimetric geoid.

This workshop intends to equip participants with the fundamental knowledge and best practice on using the geodetic infrastructures. Participants will not only gain insight on the latest developments at JUPEM but also on international practices including topics such as Precise Point Positioning, International Terrestrial Reference Frame 2014 (ITRF2014), dynamic / semi-dynamic datums, and coordinate transformation.



WORKSHOP OBJECTIVES

“ To expose participants to the theory and practical of utilising the geodetic infrastructures in Malaysia for various applications. ”

“ To encourage the use of the geodetic infrastructures in spatial data acquisition. ”

“ To raise the level of professional standard, quality and competitiveness among the geomatic land surveyors and other related professionals. ”

WHO SHOULD ATTEND?

- Licensed Land Surveyors
- Government and private Land Surveyors / Hydrographer
- Geomatic Surveying Lecturers
- Government officers dealing with surveying and mapping activities as well as geospatial data
- Local Councils