



**Cognitive Radio of 5G Wireless Network
and
GNU Radio**

Training Programme
by
Faculty of Engineering
Multimedia University

Overview

Why 5G? Why Cognitive Radio? Nowadays, high speed and high quality of service for mobile users are always in demand. Audio/Video streaming, online conferences and social media services are becoming the necessity of life. In order to fulfil the sheer amount of data needed by users, robust and efficient wireless technology is needed. 5G, is the solution for future mobile wireless networks. Therefore, cognitive radio (CR) is chosen as a promising way in order to handle this technology. CR networks become a very useful technique to fully utilize the spectrums. This workshop is useful for Telco in Malaysia for better service and improvement.

Objective

This workshop is expected to provide a good solid fundamental of cognitive radio network and explanation of using GNU Radio for 5G application.

Target Audience

UG student, PG student, researcher, technician and engineer.

Prerequisite

None.

Training Methodology

Virtual Training.

Course Duration

2 days.

Content/Outline

1. Introduction to 5G
2. CR function
3. CR cycle
4. CR mobility
5. Why GNU Radio?
6. Extensive knowledge involved
7. What is implemented currently?

Course Instructors

Assoc. Prof. Dr. Mardeni Bin Roslee

Mardeni Bin Roslee is an Associate Professor under the Faculty of Engineering, Multimedia University, Cyberjaya. He is a registered Chartered Engineer with Engineering Council United Kingdom, and Senior Member with The Institution of Engineering and Technology (IET), UK. As a Chartered Engineer, he brings a diversified range of engineering experience in design & development and engineering management. His experiences include the consultation, professional institution and academic sectors. His current research interests are 5G/6G telecommunication, satellite, Internet of Things and radar communication. He is a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE), USA and served in various leadership roles in the IEEE. He is a Chairman of Malaysia Institute of Electrical, Electronic Engineering (IEEE) in Communication Society and Vehicular Technology Society Joint Chapter and serves as Vice Chair of Malaysian Radar & Navigations Interest Group (MyRaN ig) which is under Malaysian Society for Engineering & Technology (MY SET). He is also the Chief Executive Officer (CEO), Founder of Armada Spin off company. In Multimedia University, he has been appointed as a President of Multimedia University Staff Association and Chairman of Centre for Wireless Technology. He served as a Visiting Professor at Istanbul Technical University, Turkey and SASTRA University, India and served as keynote speaker for IEEE ICECCE Turkey, IEEE SOFTT Indonesia, I3CPE India and MyTENS16 Malaysia. Dr.Mardeni contributions to academics and the engineering profession over the years have earned him recognition nationally and internationally, he has awarded more than 35 international/local awards and been awarded the University Excellent Researcher Award for 2016 and 2018, respectively. He is also the recipient of Prestigious European Award for year 2018 and World Invention Prestigious Award 2019, which is the only one from Malaysia.

Administrative Details

Programme Logistics

Duration: 2 days

Date:

Please refer to the updated dates at <https://www.mmu.edu.my/foe/short-courses/>

Registration deadline:

Please refer to the updated dates at <https://www.mmu.edu.my/foe/short-courses/>

Your Investment

	Condition	Price per Pax
Regular Fee	Students / MMU Alumni	RM500
	Public	RM800
	Public (Group >5 pax)	RM600
Early Bird Fee	Students / MMU Alumni	RM300
	Public	RM600
	Public (Group >5 pax)	N/A

Method of Payment

Please make payment via bank transfer only. Account details is as below:

Account name: Unitele Multimedia Sdn Bhd

Account number: 86-0090180-2

Bank: CIMB Islamic Bank Berhad

Payment must be made by the registration deadline.

Refund and Cancellation

Any refunds will be processed in 60 days. Should there be any cancellation, it may be due to the organizer not getting the minimum participants or the participant failing to attend the workshop due to unavoidable reason.

Disclaimer

Faculty of Engineering, Multimedia University reserves the right to change the instructors, date and to vary/cancel the programme should unavoidable circumstances arise. All effort will be taken to inform participants of the changes. Upon submission of the registration form, you are deemed to have read and accepted the terms.

Enquiries

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Registration Form

To register, please visit this link: <https://forms.gle/zd9bGsUENVs9QwAQ9>