

The Graduate School of Science's 12th Monthly Seminar

Title: X-ray Diffraction Technique for Materials Science Research



Dr. Kim Ngun Bun
Dean of Faculty of Geo-resources
and Geotechnical Engineering,
ITC

Speaker: Dr. Kim Ngun Bun
Moderator: Dr. Seang Hor Eang

Friday, 30 April 2021 from 9:00 AM-10:00 AM via Zoom



Scan or go to: <https://rb.gy/st5ccj>
to register no later than 28 April 2021



Contact Info.: Room 503 (STEM Building), Graduate School of Science, Royal University of Phnom Penh, Khan Tuol Kork, Phnom Penh.
Mobile: 089-591-006, 011-737-481, Email: gss@rupp.edu.kh, Website: <http://www.rupp.edu.kh>

Short bio:

Dr. Kim Ngun Bun received his MSc. and Ph.D. from Universiti Sains Malaysia (USM) in Materials Engineering in 2008 and 2012, respectively. He has been working on using X-ray diffraction technique for characterization of clay minerals and construction materials. He is currently working at Institute of Technology of Cambodia as dean of the faculty of Geo-resources and Geotechnical Engineering.

Title: X-ray diffraction technique for Materials Science Research

Abstract

X-ray diffraction (XRD) is a powerful nondestructive characterization technique for determining the structure, phase, composition, and strain in materials. It is one of the most-widely and frequently employed methods for characterizing materials to obtain information on the atomic scale structure of various substances in a variety of states ranging from fluid, thin film, to powders and crystals. The XRD technique allows us to identify the crystalline phases presented in the samples including single crystal, polycrystalline, and amorphous samples. The integration with chemical composition analysis, it gives possibility to determine the quantitative analysis of mineral. The examples of the application of XRD technique for clay mineral analysis and their quantitative determination are also concerned.

