

Title: Session 1 - Important aspects of cement according to MSEN 197-1

Synopsis: Cement is a commonly used product in construction. It is so common that people take it for granted that cement is just cement – a grey powder. Do you know what standards the cement that you use comply to ? Are you aware that there are 27 types of common cement in our Malaysian Standard ? What are the differences in these cement types and how are they tested, produced, and applied ? Probably you have heard of cement strength class but what exactly is that ?

This talk seeks to share insight of the important aspects of cement that you need to know as user / specifier and help you answer the above questions. Cement is more than just a grey powder, each type of cement has its own unique properties and the talk will bring you from how cement is manufactured, to its standards and applications.

Speaker Name: Ms. Serina Ho Chia Yu

Biodata: Ms Serina Ho is the Technical and Products Manager of Hume Cement Sdn Bhd. She holds a Chemistry degree from University of Malaya and a Master of Business Administration from University of Hull, UK. She is the Chairman of Technical Committee in Cement & Concrete Association Malaysia (C&CA) and the committee member of Technical Committee on Cement in Standard Malaysia. She is also a member of Malaysian Institute of Chemistry (IKM) and Past President of American Concrete Institute, Malaysia Chapter (ACI-Malaysia Chapter).

Serina has a vast experience in both cement and concrete industry. She started her career as QA/QC in a ready-mixed company and later ventured out to be the chemist in cement plant, in charge of quality and R&D of cement products. She also worked as Product Manager in ready-mixed company, responsible for developing and marketing of ready-mixed concrete products before she came back to the Cement Industry in 2012. Her journey in the construction industry is driven by her unrelenting passion for cement and concrete.

Title: Session 2 - Types of supplementary cementitious materials used in blended cement (EN 450, EN 13263, EN 15167)

Synopsis: The talk covers the different types of common supplementary cementitious materials used in blended cement according to standards, such as fly ash, ground granulated blast furnace slag, and silica fume. The talk will also cover the effects of these supplementary cementitious materials in concrete, including the governing reason and mechanism.

Speaker Name: Dr. Mo Kim Hung

Biodata: Dr Mo is presently a Senior Lecturer at the Department of Civil Engineering, Universiti Malaya. He obtained his PhD (with distinction) in the field of Structural Engineering & Materials from the same university in 2015. He is also a Professional Engineer registered with Board of Engineers Malaysia (BEM), Chartered Engineer of the Institution of Engineering and Technology (IET) UK, and Professional Technologist in the Board of Technologists (MBOT).

Dr Mo has over 9 years of research experience and his primary research interest is in sustainable and eco-friendly cement and concrete using recycled by-products, as well as lightweight concretes. Till date, he has authored/ co-authored more than 90 articles in peer-reviewed journals, reviewed articles for more than 50 different journals, and currently sits in the Editorial Board of 4 journals. Dr. Mo enthusiastically participates in the local and international concrete community; he is a member in the Technical Committee in Cement for Department of Standards Malaysia, ACI Malaysia Chapter, in addition to serving as organizing and scientific committee members in international conferences and concrete-related competitions.

Title: Session 3 - Cost-saving concrete mix design according to the latest EN 206

Synopsis: EN 206 covers the technical rules that applied to the production of concrete for structures designed in accordance with EN 1992-1-1. It is applied to ready-mixed, site mixed and pre-cast concrete. A better understanding of the standard may help in optimising the mix design. Therefore, EN 206 is essential knowledge for producers, engineers, and contractors.

Speaker Name: Mr. Yeo Shih Horng

Biodata: Mr Yeo Shih Horng has a Master's Degree in Engineering Sciences from University of Malaya in 2013. He obtained his Bachelor's Degree in Engineering in 2009 from University of Malaya. Mr Yeo is the director of YSH Concrete Technology Sdn. Bhd. mainly specializing in designing high-performance concrete, high strength concrete and low heat concrete.

Mr Yeo had worked on numerous projects with various companies. Since 2015, Mr Yeo works as a concrete technical expert for TUV SUD PSB (Malaysia) Sdn. Bhd. In the same year, he had completed a project on high early strength and mass concrete mix design in Dalian, Liaoning, China. He also advised Coco Project, Singapore regarding Grade 75 high early strength concrete with low heat properties.

He had involved in forensic investigations such as building structural integrity assessment, cracks in concrete sleeper, investigation of delayed ettringite formation in mass concrete, cracks in tunnel lining after heat treatment, cracks in industrial floors, defects in precast elements, etc.

Mr Yeo is also very active in associations and various activities. He is a committee member of the American Concrete Institute – Malaysia Chapter from 2010 till 2019. Furthermore, he is the committee member of the Civil and Structural Engineering Technical Division of The Institution of Engineers, Malaysia (IEM) from 2017 to 2019.

Title: Session 4 - Concrete Testings for Fresh and Hardened Concrete, including Self-Compacting Concrete (EN 12350 & EN 12390)

Synopsis: This session will cover on the common testing procedures for fresh and hardened concrete with reference to the European Standards. Parallels will also be drawn to the ASTM standards. The discussion on fresh concrete tests will include slump test, Vebe test, degree of compactability, flow table test, and density; while discussion on workability and flowability tests of self-compacting concrete will cover on slump flow, V-funnel flow, J-Ring and L-Box tests. On the other hand, the hardened concrete tests will mainly focus on the properties such as compressive strength, flexural strength, splitting tensile strength and density.

Speaker Name: Dr. Sudharshan N. Raman

Biodata: Dr. Sudharshan N. Raman is an Associate Professor in Civil Engineering in the School of Engineering, Monash University Malaysia; with research interest(s) in concrete engineering and technology, and structural resilience. Dr. Raman is also a Past President of the Malaysian Chapter of American Concrete Institute.

Title: Session 5 - Non destructive test (EN 12504)

Synopsis: This presentation focuses on the deployment of advanced non-destructive testing (NDT) methods of concrete structures as utilized by the structural engineering industry in performing structure forensic investigation/ condition assessment. The fundamentals of NDT methods are explored in regards to their potential, limitations, inspection techniques and interpretations, as well as the factors that influence the success of NDT methods are discussed. The advanced NDT of concrete is found to be gaining increasing acceptance by local consultants/ clients as a means of evaluating the strength, uniformity, durability and other properties of existing concrete structures. The perceptions of NDT inadequacy were attributable to lack of understanding of construction materials and NDT methods themselves. This presentation provides an overview of the current state of advanced NDT application by identifying and describing the most common successful methods of NDT as applied to concrete structures.

Speaker Name: Ts. Go Chee Siang

Biodata: Ts. Br. Go Chee Siang, holds a Master's degree in Civil Engineering and BSc in Construction Management, is a registered Chartered Civil Engineer and Professional Technologist, a qualified multi disciplinary built environment professional, and having spent 22 years working for locally established Contractors.

His specific experience and expertise include construction project management, planning & scheduling, risks management, technical & value engineering specializing in Dams and Hydropower (such as Roller Compacted Concrete Dam, Concrete Gravity Dam, Earthfill Dam), Railway Infrastructures & Trackwork, Water Treatment Plant, and Roads & Bridges, as well as the structural condition assessment.

Title: Session 5 - Non destructive test (EN 1504)

Synopsis: Moving into 2022, more and more questions have been raised on cost effective ways of repair and maintaining concrete structures. Sweeping across land RC structures to harsh marine structures, engineers and contractors have been given task to ensure life span of concrete structures can be continued for next many number of years. This topic today we will go through step by step general guidance on concrete repair and protection using European Standards EN1504 series. If time permitted, a similar code on ACI-562 will be highlighted in conjunction with EN1504.

Speaker Name: Mr. Lee Yean Fu & Dr. Zack Lim

Biodata: Mr Lee Yean Fu started his career in 1995 as branch manager for Sika Kimia S/B. Later in 1997 he formed UFT Structure Re-Engineering S/B specialised in concrete repair and structure strengthening, business carries on till today. Besides, he also runs an independent site investigation firm, namely Sinct-lab S/B since 2000. Over his 24years of service in the industry, he has accumulated numerous site experience and application knowledge in concrete repair and structure strengthening works.

Dr. Zack Lim is widely recognized in the flooring industry circle in Malaysia and throughout other countries in the world. He is the Managing Director of Zacklim Flat Floor Specialist Sdn Bhd with almost 40 years of experience in the construction industry, he aims to lift the construction standard by sharing his passion with practical knowledge and experience to as many people as possible.