

TECHNICAL TALK ON “CRADLE TO CRADLE: SPENT COPPER SLAG, HAZARDOUS WASTE TO CONSTRUCTION MATERIAL”

Organised by the Engineering Education Technical Division, IEM

in collaboration with Engineers Australia Malaysia Chapter (EAMC), and Institute of Mechanical Engineers Malaysia Branch (IMEchE)

BEM Approved CPD/PDP: 2

Ref: IEM19/HQ/157/T

Date : 18 June 2019, Tuesday
Time : 5.30 pm – 7.30 pm
Venue : Auditorium Tan Sri Prof. Chin Fung Kee
Third Floor Wisma IEM, Petaling Jaya, Selangor
Speaker : Ir. Dr. Salmaliza Salleh

SYNOPSIS

The spent copper slag or also known as abrasive blasting wastes (ABW) from shipyard repair were characterized by DOE as hazardous waste has contribute to environmental, space and cost problem for disposal. The aim of this work is to investigate the effects of using the waste as a replacement for fine aggregate in bricks. The compressive strength, density and water absorption of the brick and its leachability of heavy metals were also reported. The compressive strength of the ABW concrete was highest at 20% replacement for sand compared to clay bricks and calcium silicate bricks respectively. The density test results show that the samples containing ABW as sand replacement has the higher density compared to the control sample. The workability of fresh ABW concrete increased with the increase in the percentage of ABW replacing sand. The ABW stabilization and solidified in cement paste provides tremendous environmental as well as technical benefits for all related field especially in construction industries as it reduces the leachability of heavy metals.

SPEAKER BIODATA



Salmaliza Salleh received her PhD in Engineering from University of Malaya in 2018, Masters in Project Management from National University of Singapore in 2007 and Bachelor of Civil Engineering from Universiti Teknologi MARA in 2004. Her specialization is stabilizing and solidifying hazardous waste and utilizing industrial waste in concrete production. She has more than 10 years of experience in the field and has been teaching in the same area for more than 15 years. She was the lecturer in the Faculty of Civil Engineering, Universiti

Teknologi MARA for more than 5 years before joining SEGi University in 2009. She was attached to MTC Engineering Group to gain her industrial experience for two years in between 2014 and 2016 before came back to SEGi University at the end of 2016 and appointed as the Civil Engineering Programme Leader. Currently she is the Chairperson of Internship and Industry Liaison for the Faculty of Engineering and the Built Environment, SEGi University.

Ir. Assoc. Prof. Dr. Mohamed Thariq
Chairman
Engineering Education Technical Division
Session 2018 / 2019

ANNOUNCEMENT TO NOTE

FEES

(Effective 1st October 2017)

Members

Registration Fee : NO CHARGE

Administrative Fee :

Online: RM15

Walk In: RM20

Non-Members

Registration Fee : RM50

Administrative Fee : RM20

- Limited seats are available on a "first come first served" basis (maximum 100 participants).
- **To secure your seat, kindly register online at www.myiem.org.my**

PERSONAL DATA PROTECTION ACT

I have read and understood IEM's Personal Data Protection Notice published on IEM's website at www.myiem.org.my and I agree to