



WEBINAR TALK ON WASTE TO ENERGY (WTE) PLANT

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PUBLIC SECTOR ENGINEERS SPECIAL INTEREST GROUP, IEM

SPEAKER:

Ir. TIAN FUNG WANG

 11 JANUARY 2025, SATURDAY

 11.30AM - 1.30PM



REGISTRATION FEE

IEM STUDENT : FOC

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SYNOPSIS

Municipal Solid Waste (MSW) generated from human being daily activities. It was keep increasing resulted from the increase of population, wealth and changing of lifestyle. This is a side effect of Urbanization or something that we have scarified in pursuing “DEVELOPMENT”.

Currently, Malaysia is adopting Landfill method in treating MSW. All the MSW was gathered at a specific dedicated location and landfilled. As per the guidelines, landfill area shall be properly selected which mean far from underground water stream to minimize the possibility of polluting our water source. Further to that, it shall be constructed with proper liner to avoid leakage of Leachate Water (water generated from waste) into surrounding soil or water stream. Since MSW keep increasing every day, accumulated landfill area will also keep expanding. Despite the environmental issue, the scarcity of land had become a challenge to many local authorities whereas new waste is increasing but existing landfill was full. Overloading the landfill may cause additional pressure to the liner and puncture it allowing leachate water to seep into underground soil. Too much overloading of landfill may cause landslide as well. This has been happened in some country but fortunately, it had yet to happen in Malaysia.

Due to the above landfill issue, most of the developed countries had adopted WtE technology in treating increasing MSW. With this technology, the landfill lifespan can be extended more than 6 times which mean if landfill was designed for 5 years originally can last for at least 30years after adopting WtE technology.

Malaysia Government had started to adopt WtE technology in treating MSW nowadays. Despite KL Kepong WtE tender, KPKT had also issued Johor Bukit Payong WtE tender and Melaka Sungai Udang WtE tender. It seems that Malaysia is moving into a new era of treating MSW. However, it is very important to understand the fundamental principle of WtE while implementing it in order to ensure its success.

The objective of this talk is to share experience and knowledge gain while developing, constructing and operating of Waste to Energy Plant in other countries namely Thailand & Indonesia.

SPEAKER'S PROFILE

Ir. Tian Fung Wang is an experienced and qualified Professional Engineer with over 20 years of experience in Power Plant construction, commissioning and operation. He has vast experience in the construction of Waste to Energy plant. He was the Technical & Project Director in charge of the construction of Indonesia 1st 750TPD WtE Plant at Surabaya under BOT concept. Prior to that, he had completed construction and commissioning of Malaysia 1st 100TPD Scheduled Waste to Energy Plant at Negeri Sembilan and Thailand 1st 700TPD BOT WtE Plant at Phuket. Currently, he is the Technical & Project Director for Econas Energy Sdn Bhd assisting sister company – ER2E developing 3rd Scheduled Waste Treatment Centre in Peninsular Malaysia. He is also Principal Consultant in iTAKE Solutions Sdn. Bhd. leading the design of new Thermal Decomposition Project resolving the excess of Empty Fruit Bunch in Palm Oil Mill. He is also an adjunct lecturer for Miri, Curtin University. Currently, Ir. Tian also providing training & advisory services in developing WtE Plant in Malaysia and overseas during his free time.