Introduction to Marine & Offshore Trends (IMOT) *Public run* Schedule 2021

Session	Topic	Contents	Trainer
4 May Tues	Energy business, Design of LNG carrier	(a) renewable energy market (b) LNG market (c) Some design aspects of LNG carrier • Structural aspect • cargo handling aspect • hydrodynamic aspect • cargo containment aspect	Y H Chua
6 May Thur	LNG processing	(a) Pretreatment of natural gas • Condensate removal • Acid gas removal • Dehydration • Mercury removal (b) Liquefaction of natural gas • Precooling, 25 ^{o}C to -30^{o}C • Liquefaction, -30 ^{o}C to -120^{o}C • Sub-cooling, -120 ^{o}C to -150 ^{o}C	Dr Zhou Xingding
11 May Tues	LNG processing	(c) Regassification of LNG (d) LNG process equipment – Construction and characteristics	Dr Zhou Xingding
18 May Tues	Photovoltaic, Wind and Hydro Power 13 May Thur = Public Holiday (Hari Raya Puasa)	Introduction: Trends of Renewable Energy PV: (a) Key operating components: PV, MPPT, Battery, BOS (b) Operational factors: mono/poly crystal, sun hour, tilt angle Wind: (a) Key operating components: Nacelle, Blade, Tower (Gearbox, Generator, Inverter, Control) (b) Operational factors: Wind speed, Altitude	Tan B L
20 May Thur		Hydro: (a) Key operating components: Penstock, Turbine, Generator, Spillway (b) Type of Turbines: Pelton, Kaplan (c) Operational factors: Head, Flow Rate Overall Power Layout - Systems and substations: (a) the overall power layout from the last further most turbine/solar panel/hydro-turbine to the 1st land substation (b) the in-line features within the system	Tan B L
25 May Tues		TEST (F2F)	Y H Chua

All lessons evening 6 to 10 pm except Test day 10 am to 11 am