

Webinar Talk on

"Electrical Submersible Pump for Oil & Gas Production"

Jointly organized by:

Mechanical Engineering Technical Division, IEM & IMechE Malaysia Branch

Date: 11th March 2023 (Saturday) | Time: 10am to 12pm | Venue: Virtual Platform – Zoom

BEM Approved CPD/PDP Hours: 2 Ref No: IEM23/HQ/049/T (w)

REGISTRATION FEES

IEM Students: Free

IEM Members/IMechE Members: RM15 (Online) / RM20 (Offline) Non-IEM Members: RM70

Speaker Profile

Dr. Cheah Kean Wee graduated from University of Leeds with Bachelor of Mechanical Engineering Degree in 2000. He worked in SONY Electronics Singapore as a Mechanical Engineer before furthering his studies at National University of Singapore and obtaining the Master of Science in 2005 and PhD in 2012.

Dr. Cheah later joined SLB (previously known as Schlumberger) REDA Production System as a Mechanical Engineer in the New Product Development department in 2010. Since then, he has been involved in many new Artificial Lift technology development and commercialization. He is currently a Senior Team Lead specializing in Electrical Submersible Pump hydraulic and mechanical design. He also authored and coauthored many internal and external conference and symposium papers and presentations.

Being a Chartered Engineer and Fellow of IMechE, Dr. Cheah is very active in profession society's involvement. He served as IMechE Singapore Branch Chairman from 2019 to 2021 and held various positions on the committee before that. He currently also serves as Membership Chairman of the Society of Petroleum Singapore Branch. Dr. Cheah is also a certified Project Management Professional (PMP) and a member of the Project Management Institute.

Synopsis

The Electrical Submersible Pump (ESP) system is one of the most widely used Artificial Lift methods for oil and gas production. The first ESP system was developed almost a century ago, but the current ESP system still keeps the essential design. However, ESP system evolved over time with many advanced technologies being introduced to improve reliability, being more versatile and flexible to be deployed in a more challenging operating environment.

The current presentation will give an overview of the Electrical Submersible Pump (ESP) design, manufacturing, testing and qualification process. ESP application specific challenges such as pumping high viscosity fluid and operating in sandy and gassy wells are also being discussed.

To conclude, some alternative ESP trends and technologies are being touched on to understand how the oil and gas industry as a whole works towards a Sustainable future.

Ir. Dr. Aidil Chee Tahir Chairman Mechanical Engineering Technical Division, IEM



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