

IEM
The Institution of Engineers, Malaysia

Organised by
SAFETY IN ENGINEERING
SPECIAL INTEREST GROUP (SESIG)

WEBINAR TALK ON OPTIMISING MATERIAL HANDLING & LIFTING SYSTEMS FOR OPERATIONAL RESILIENCE

DATE
NOVEMBER 26, 2026 (THURSDAY)

TIME
5:00 PM – 7:00 PM

ZOOM PLATFORM

BEM APPROVED CPD: 2.0 | **REF NO: IEM26/HQ/504/T**

REGISTRATION FEES

IEM Student Member	: FOC
IEM Member	: RM 15.00
Non-Member	: RM 70.00

Synopsis

Material handling and lifting systems are essential to industrial operations, yet their importance is often overlooked until equipment failures, production delays or safety incidents disrupt the workflow. From cranes and forklifts to conveyors and automated solutions, effective material handling requires more than moving materials; it demands safe, efficient and reliable material flow throughout the facility.

This webinar explores how organisations can optimise material handling and lifting systems to strengthen operational resilience amid changing industrial demands. Drawing on practical engineering perspectives, it examines how equipment selection, workplace layout, operational processes, maintenance, workforce competency and digital monitoring contribute to safety, productivity and business continuity.

Participants will gain practical insights into how to:

- **Identify bottlenecks and critical risks** by analysing material flow, equipment performance, operational constraints and safety hazards.
- **Improve safety, productivity and reliability** through better equipment selection, process standardisation, effective maintenance and appropriate automation.
- **Reduce unplanned downtime and operational costs** by identifying critical dependencies, monitoring equipment conditions and addressing the root causes of disruption.
- **Apply practical diagnostic tools** such as process mapping, spaghetti diagrams, value-stream mapping, time-motion studies and equipment utilisation analysis.
- **Make better engineering decisions** by evaluating load capacity, duty cycle, operating environment, equipment geometry, safety requirements, controls and future needs.
- **Build operational resilience** by anticipating disruptions, maintaining control under stress, responding effectively, recovering safely and learning from operational failures.

The webinar also introduces a structured optimisation roadmap that integrates engineering improvements, digital monitoring, performance measurement and continuous improvement.

Ultimately, participants will learn to shift their focus from individual machines to the entire material-handling system. By applying these principles, organisations can make informed decisions, eliminate unnecessary movement, strengthen operational continuity and develop safer, more efficient and adaptable operations that remain effective when conditions change.

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Speaker

Ir. Ts. Nicholas Chee Kwok Shern

Ir. Ts. Nicholas CHEE is a Crane Expert, Author, Industrial Trainer and Technical Speaker with over 20 years of hands-on experience in lifting equipment, electrical & mechanical systems and industrial safety.

He is the Founder of NCH International Sdn Bhd and NCH TVET Sdn Bhd, a group of companies focused on industry-driven technical training, engineering consultancy, workforce development, and independent inspection solutions.

Currently also serving as General Manager at VME Material Handling Sdn Bhd, in collaboration with Verlinde France, Nicholas is actively involved in crane design, engineering, inspection, performance optimization, and advanced lifting solutions across various industrial sectors. His expertise covers mechanical and electrical design, FEM and BS standards, preventive maintenance, automation, and lifting system optimization.

As a Registered Professional Engineer in Malaysia, he is passionate about bridging the gap between engineering theory and real-world industry practice. He has also served as an Examiner for the Board of Engineers Malaysia (BEM), evaluating candidates for the Professional Assessment Examination (PAE).

Combining technical expertise, industry leadership, and a passion for developing people, Ir. Ts. Nicholas CHEE brings practical insights and real-world experience to every training and speaking engagement.

He strongly believes in lifelong learning, continuous innovation, and empowering others to reach their full potential. Whether delivering talks, conducting professional training, providing engineering consultancy, or leading overhead crane and material handling projects, **Ir. Nicholas' mission is simple ... is to create meaningful impact that lasts.**

Driven by this belief, Ir. Nicholas developed the **NCH Philosophy:**

> Never wait to take action on your **Dreams**,
> Commit to the Journey with **Purpose**,
> Have the Discipline to Finish **Strong**.
> *Lets take actions, stay committed & be discipline*
>
> *- By Ir. Nicholas CHEE*



To learn more about him please visit his personal website:

https://irnicholas.com

Connect with him via LinkedIn:

https://www.linkedin.com/in/irnicholas/