



Engineering Leading the Industry for Nation Building

Presented by:

Ir Anthony Teoh

Asst Secretary General -1



Master Builders Association Malaysia (MBAM)



OUTLINE

NATION BUILDING

ENGINEERS' ROLE IN NATION BUILDING

CHALLENGES

WAY FORWARD



NATION BUILDING

SUSTAINABILITY DEVELOPMENT

- *GREEN ENERGY
- *3R

IMPROVE QUALITY OF LIFE

- *TRANSPORT
- *MEDICAL
- *INTERNET
- *AUTOMATION
- *AI

PROVIDE BASIC NEEDS

- *SHELTER
- *CLEAN WATER
- *POWER SUPPLY



NATION BUILDING





ENGINEERS' ROLE IN NATION BUILDING

- DESIGN & INNOVATION
- COSTING & BUDGETING
- PLANNING & MONITORING
- SUPERVISION & QUALITY CONTROL
- CONTRACTS ADMINISTRATION
- BUILD & CONSTRUCT
- MAINTENANCE & REPAIR

- *FRAMEWORK & POLICY*
- *MANAGEMENT*

ENGINEERS' ROLE IN NATION BUILDING

INDUSTRIAL REVOLUTION

<p>The industrial revolution begins. Mechanization of manufacturing with the introduction of steam and water power</p> <p>1st Revolution</p>	<p>Mass production assembly lines using electrical power</p> <p>2nd Revolution</p>	<p>Automated production using electronics, programmable logic controllers (PLC), IT systems and robotics</p> <p>3rd Revolution</p>	<p>Autonomous decision making of cyber physical systems using machine learning through cloud technology</p> <p>4th Revolution</p>
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ESG

Environmental, social and corporate governance



SHARED PROSPERITY VISION
WAWASAN KEMAKMURAN BERSAMA

2030





CHALLENGES

DECLINE IN NOS
OF
ENGINEERING
STUDENTS

ALTERNATIVE
JOB
OPPORTUNITIES
FOR
ENGINEERING
GRADUATS

POOR
AWARENESS ON
CONTINUOUS
PROFESSIONAL
DEVELOPMENT

BRAIN DRAIN



WAY FORWARD

REWARDS

OPPORTUNITIES

RECOGNITION

EDUCATION



THANK YOU



Committed to Engineering Excellence

BOARD OF ENGINEERS MALAYSIA

Tingkat 17, Blok F, Ibu Pejabat JKR
Jalan Sultan Salahuddin, 50580 Kuala Lumpur

<http://www.bem.org.my>

bemconvention2022@bem.org.my or event@bem.org.my

Tel: 03-26912090