



# Sharing Session: Starting My Career in the Engineering Profession

Presented by:

Prof. Madya Ir. Dr. Lai Khin Wee

(BEM Malaysia Most Prominent Young Engineering Leader 2022)

# PROF. MADYA IR.TS. DR. LAI KHIN WEE



- Academic Qualification
  - ❖ BEng. (Biomedical) UTM, 2009
  - ❖ PhD.(Biomedical) TU Ilmenau Germany and UTM, 2012
- Professional Registration
  - ❖ Chartered Engineer, UK Engineering Council
  - ❖ Chartered Professional Engineer, NER Engineer Australia
  - ❖ ASEAN Chartered Professional Engineer
  - ❖ APEC Engineer, IntPE (Australia)
  - ❖ Professional Engineer (Ir.) with Practicing Certificate, Malaysia
  - ❖ Professional Technologist (Ts.), MBOT Malaysia
  - ❖ Young Scientist Network – Academy Sciences Malaysia
  - ❖ Young Affiliate – The World Academy of Sciences (TWAS)
- Fellowship
  - ❖ Fellow, Institute of Engineers Malaysia (FIEM)
  - ❖ Fellow, Engineer Australia (FIEAust)
  - ❖ Fellow, CEO@Faculty 2.0, Ministry of Higher Education Malaysia
  - ❖ ACU Fellowship, United Kingdom



# Outline of Presentation

About me – Career Path, Awards and Achievements

Project Highlights

CSR

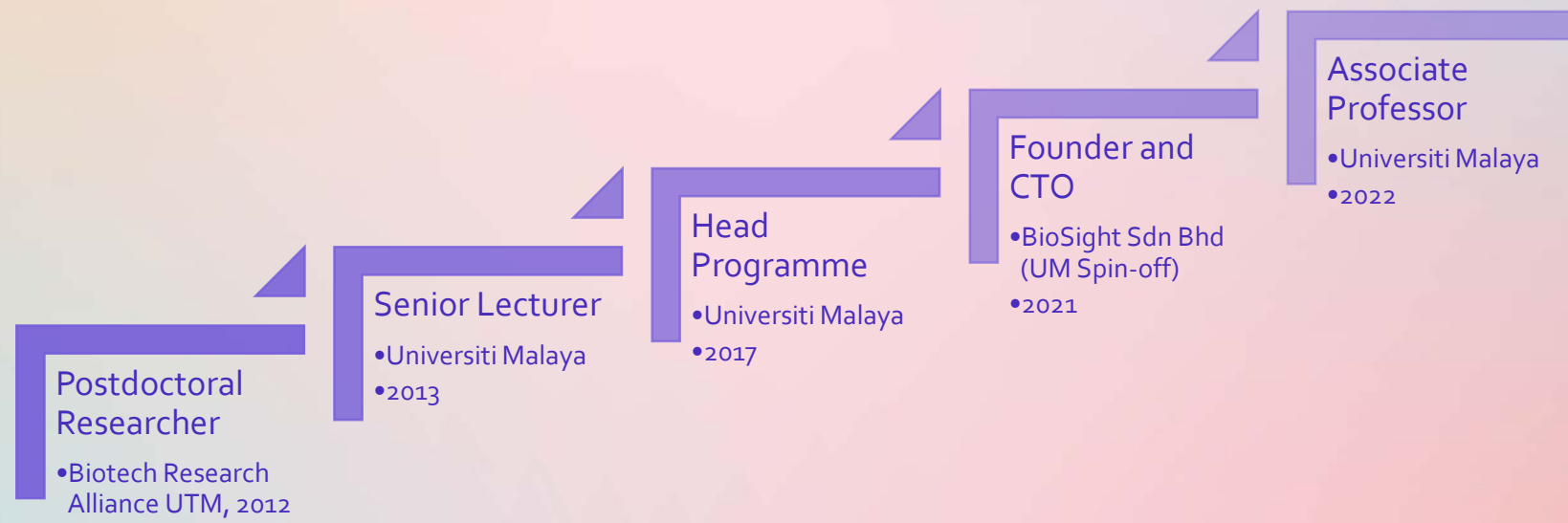


# SPECIAL AWARD AND CONFERMENT





# CAREER PATH







# Research achievements

Supervised 48 PhD and Master students

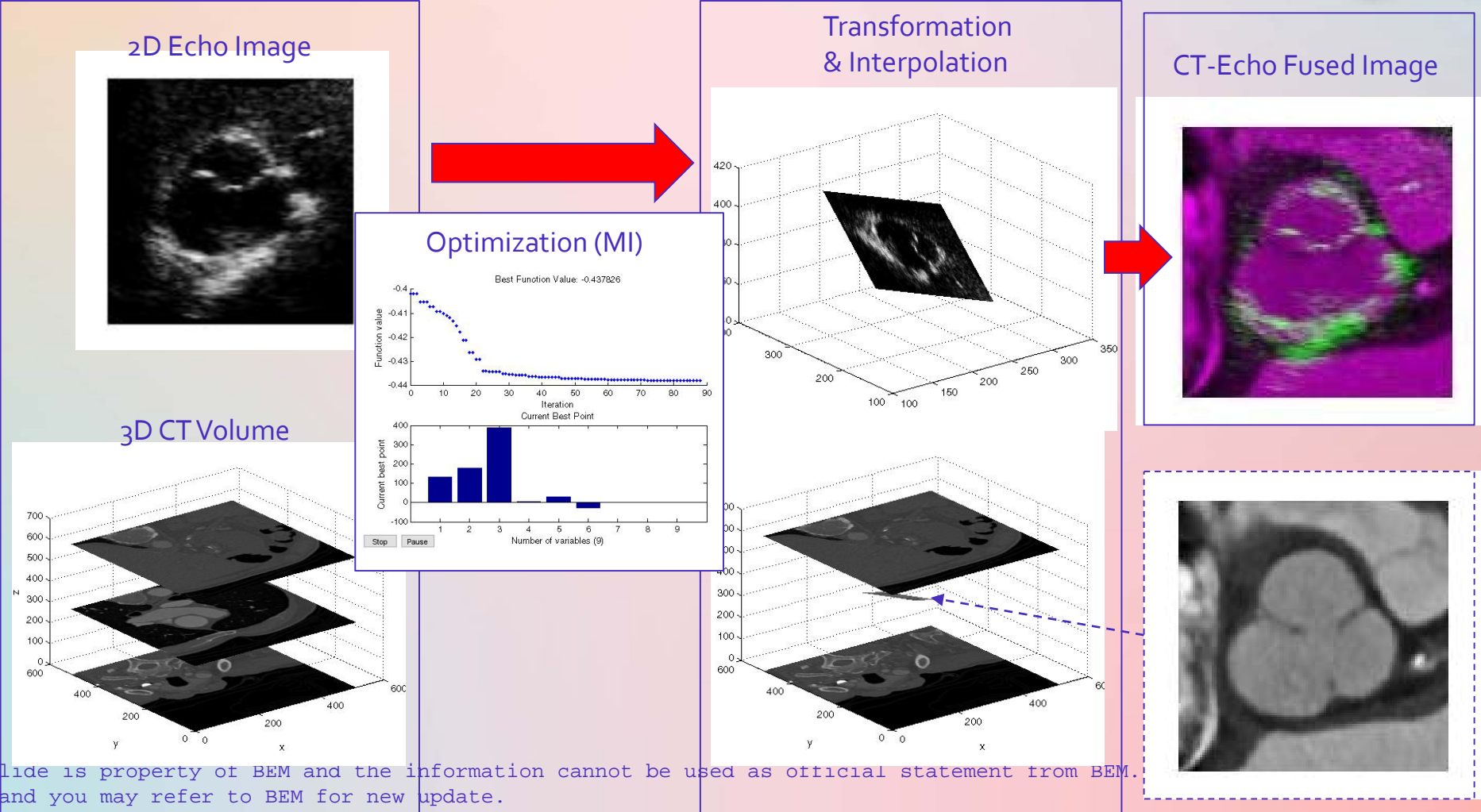
Principle Investigator for > 30 projects (~ MYR 2 millions)

15 patents filed, 2 Granted, and 2 undergoing licensing to BioSight Sdn Bhd.

Recipient of more than 30 Gold and Special Awards from the expo organized in Malaysia, Taiwan, Singapore and Brunei

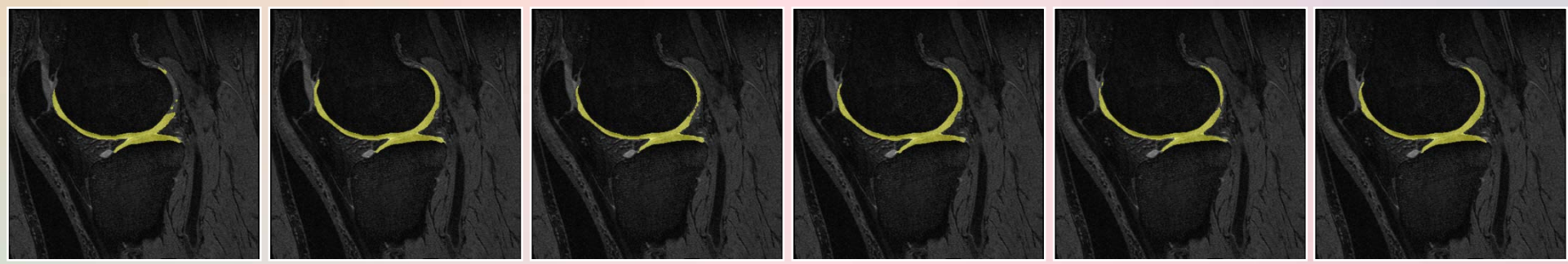


# Cardiovascular Research with Insitut Jantung Negara





# Osteoarthritis Research with UMMC

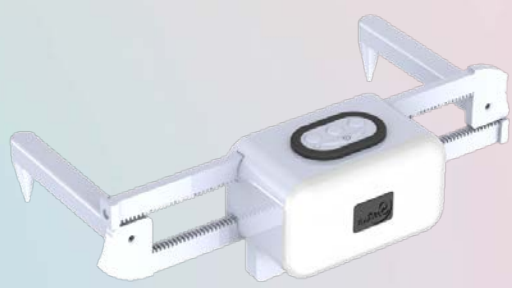
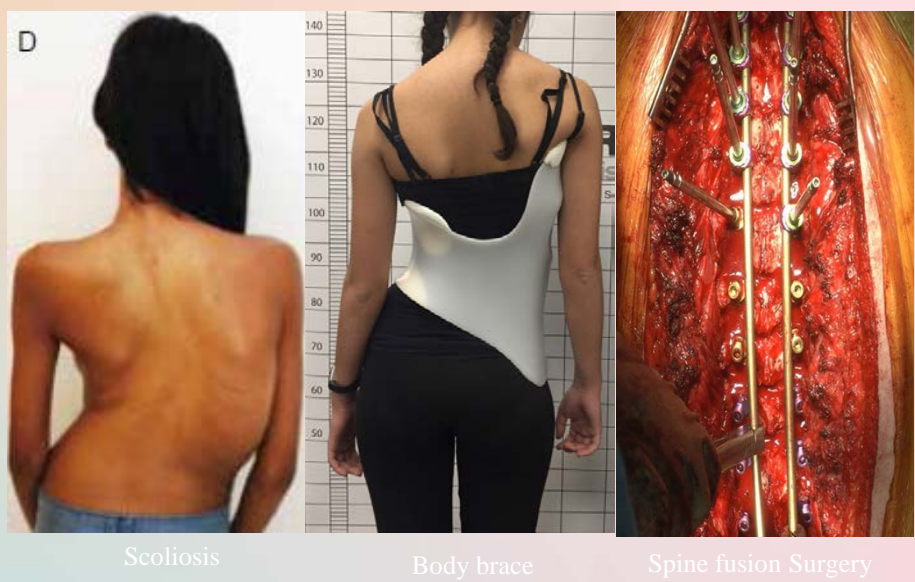


GT	4	4	4	4	0	0	1	1
PR	3	3	4	4	1	1	0	0

Predictions performed by Ordinal Regression Module approach.  
Remarks: GT – Ground Truth; PR – Predicted grades




# Scoliosis Research with UMMC



### CLINICAL TRIALS<sup>[1]</sup>

Methods (R=+ve/L=-ve)	Standing			
	Shoulder Angle	Time(s)	Shoulder Height	Time(s)
Baseline Scolliometer	R 4.0	47.0	14.0	50
Scoltech	R 4.6	10	5.3	10

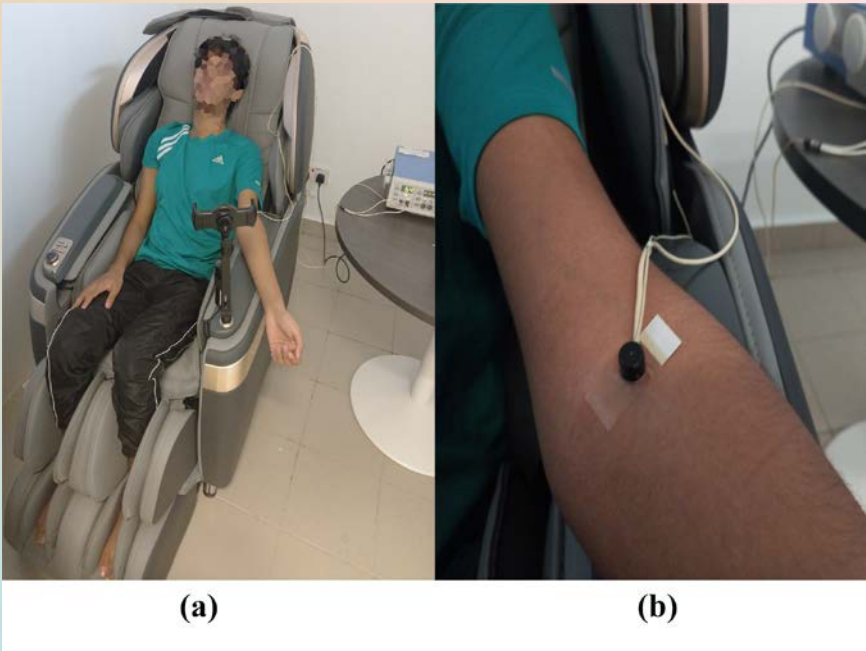
Methods (R=+ve/L=-ve)	Forward Bending			
	Scolliometer Thoracic	Time(s)	Thoracic Hump Height	Time(s)
ATR Scolliometer	R 16	15	R 14.0	30
Scoltech	R 15	5	R 20.0	15



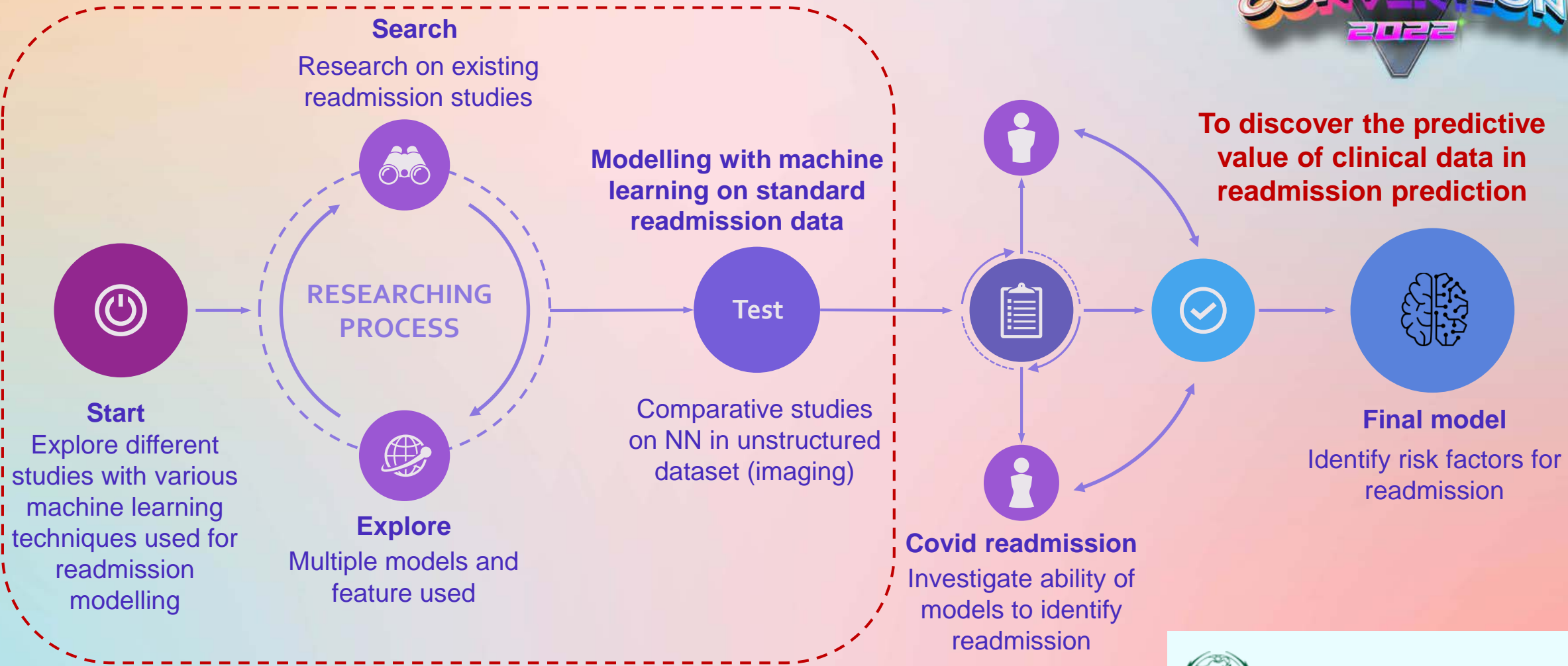
[1] Conducted at UMMC by surgeons after receiving approval from Medical Research Ethics Committee. MREC ID NO: 2017323-5082

# Industrial project with Ogawa Malaysia

INVESTIGATING MASSAGE EFFECTS ON SKIN  
TISSUE PERFUSION AND SLEEP QUALITY



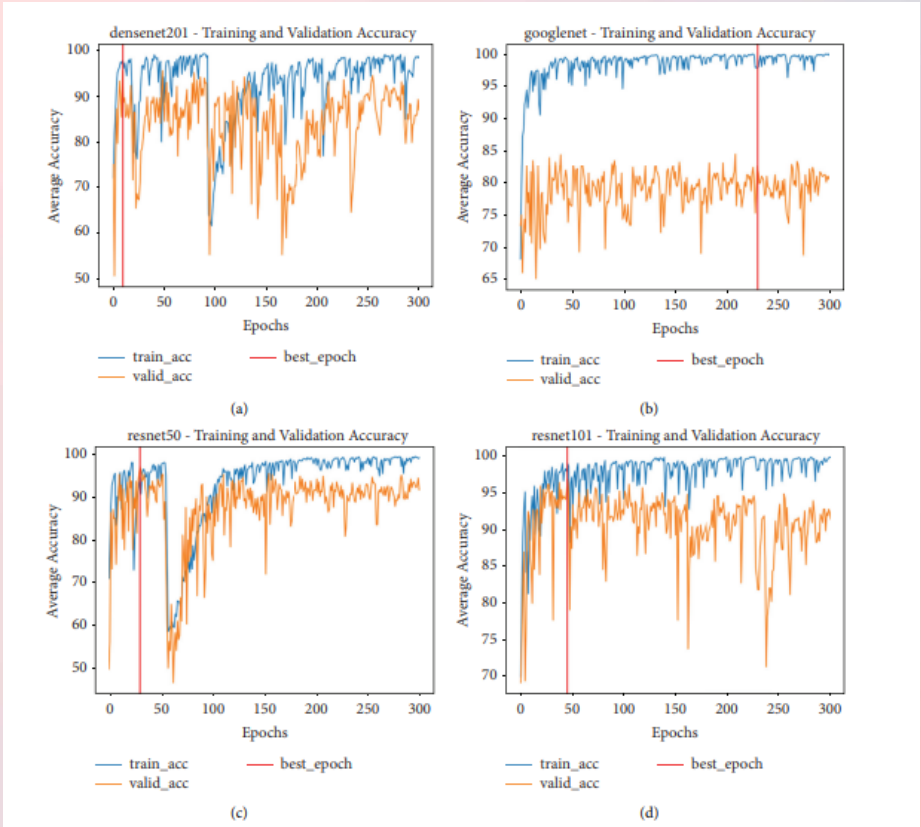
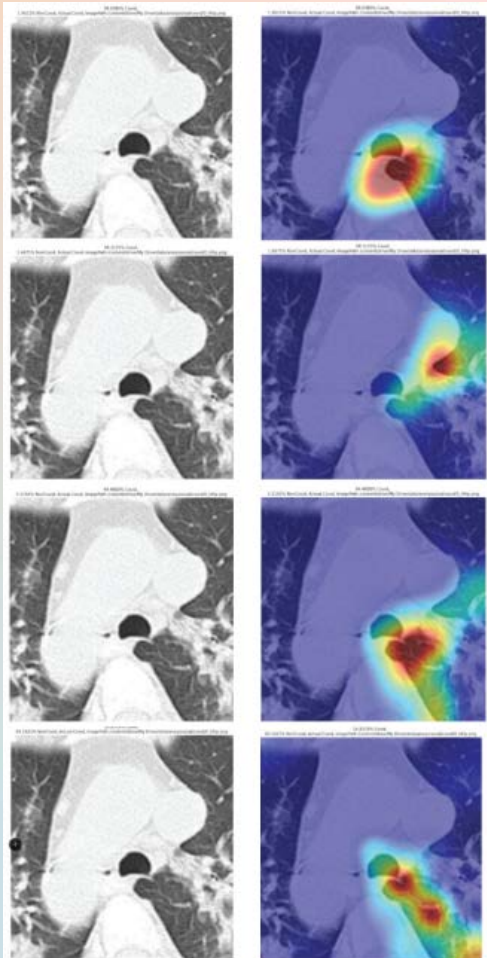
# COVID19 research with APT EBC-China





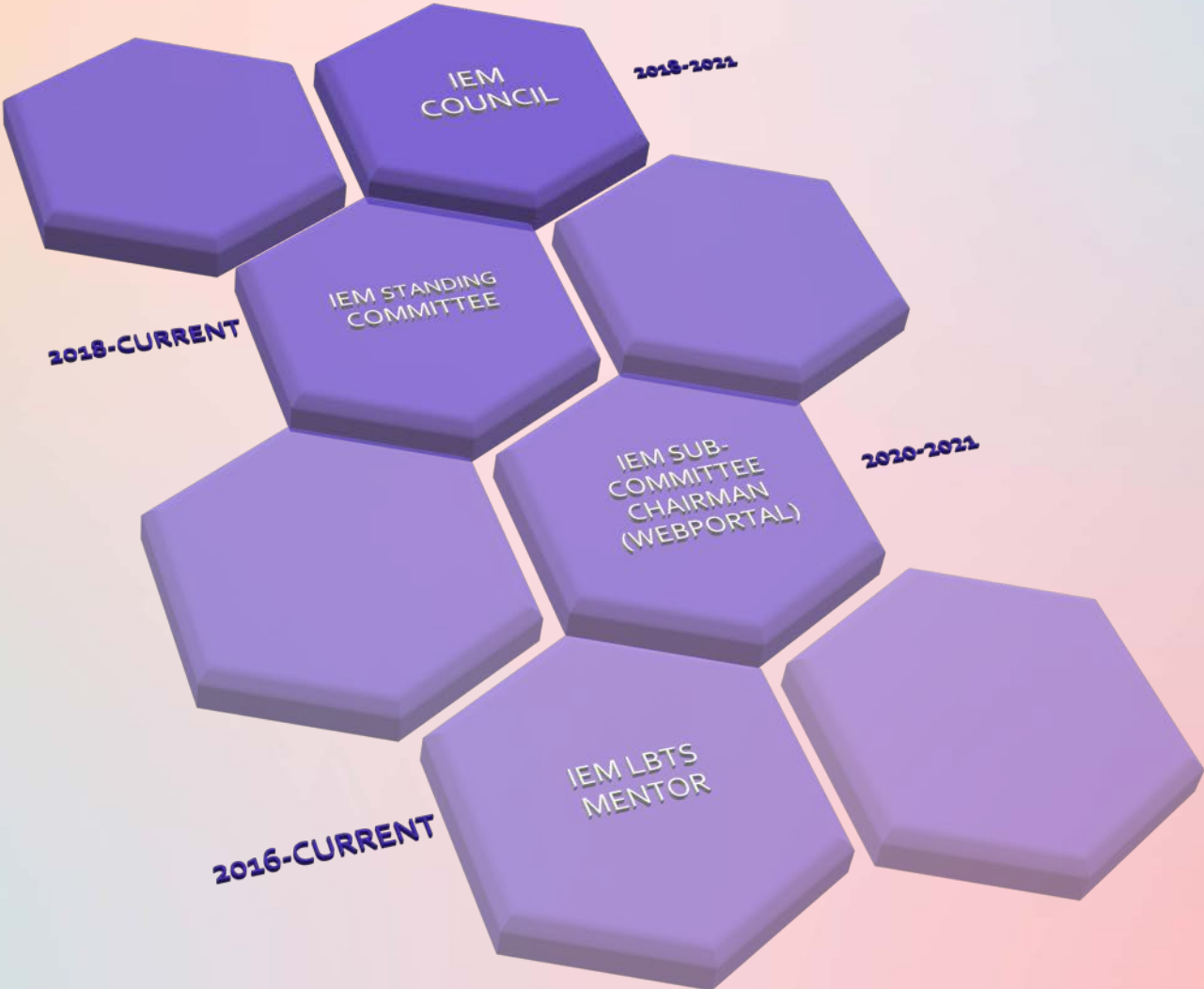


# COVID19 Research with SRM Medical Hospital India





# CSR







# CSR





# 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](mailto:bemconvention2022@bem.org.my) or [event@bem.org.my](mailto:event@bem.org.my)

Tel: 03-26912090