

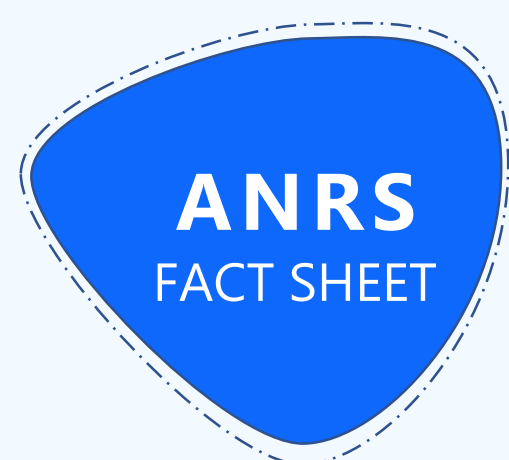
Centre of Excellence in Maritime Safety

SINGAPORE POLYTECHNIC

Advanced Navigation Research Simulator (ANRS)



**DIGITAL TO THE
CORE**



First

Dedicated navigation
research simulator in South
East Asia



Jointly developed

In partnership with Singapore
Maritime Academy and
Kongsberg Digital



Investment

1.24 million SGD for the
advanced research
simulator

ANRS Commissioned

ANRS is the only dedicated navigation research simulator in South East Asia equipped with Full Mission Ship-handling Simulator (FMSS) and Vessel Traffic Information System (VTIS). It allows CEMS to work closely with Singapore Maritime Academy to enhance the training assessment and delivery for our seafarers. Through it, we can also use our research findings to improve our human resource performance and build AI assessment systems. Such AI systems could be deployed at other training institutions in Singapore and globally.

Leveraging on ANRS, CEMS is also in close partnership with PSA Marine to embrace technologies to enhance training and assessment for our Harbour Pilots. Both parties share a common vision. The collaboration on AI assessment of navigation and ship handling competency for our pilots is a great move to study the human elements that is critical to maritime safety.



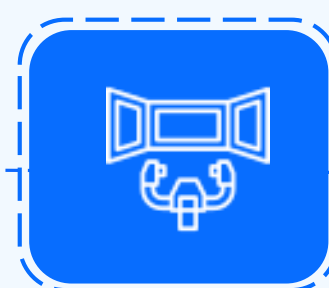
Integrated with different
sensors (eye tracking glasses,
CCTV cameras and EEG
headband) for R&D in human
factors



Easily reconfigurable to
different vessel types



Open software
architecture for in-house
development of research
applications



AI applications are being
built to assess trainee's
performance in simulator
training



PSA Marine as the 1st
user and collaborator

CEMS is building a strong network of research ecosystem to leverage on ANRS with public sector research institutions and industry partners. This will entrench Singapore's position as the world leader in maritime education and training.

