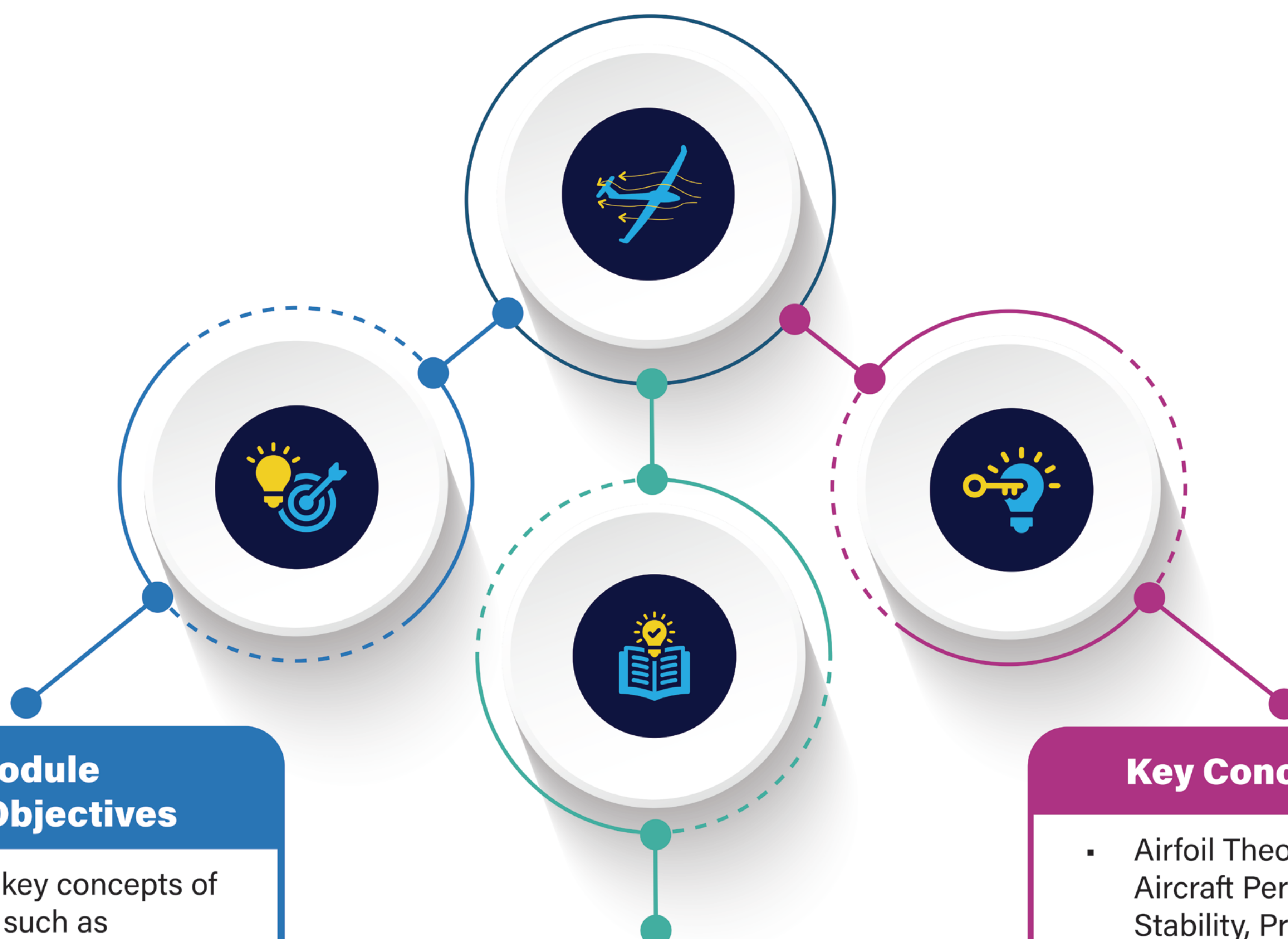


WORLD OF SCIENCE AT DSO NATIONAL LABORATORIES

Members:

Darius Seah Boon Siong (River Valley High School)
Boyce Ang Kok Hong (Hwa Chong Institution)
Tan Yan Qi (Raffles Girls' School)
Ee Kui Wei (Methodist Girls' School)

AERODYNAMICS



Key Module Learning Objectives

- Introduction to key concepts of Aerodynamics, such as Performance, Stability and Fluid Mechanics
- To recognise that Aerodynamics occurs in a wide range of fields and is part of our lives
- To cultivate an interest in modern physics by giving students a taste of cutting-edge research



Learning Journey Milestones

- Design and analyse their own Glider using a computational software to optimise for Aerodynamic Efficiency
- Design and build an actual Glider, competing in teams to see which team can obtain the best range
- Visit to a large-scale flight simulator centre comprising of realistic cockpit mock-ups
- Visit to Airforce Museum, Paya Lebar Airbase F-15SG Hangar and Engine Ground Test Facility



Key Concepts Taught

- Airfoil Theory, Fluid Dynamics, Aircraft Performance, Aircraft Stability, Propulsion, Defence Aerodynamics

