

## **TRACK 5: INNOVATION AND APPLICABLE TECHNOLOGY**

### **“CONCEPTUAL DESIGN OF A LOW-COST TRAINING HELICOPTER”**

**BY**

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#### **ABSTRACT**

The helicopter industry is forecasted to grow in the long term, and this would be accompanied with an increase in the demand for helicopter pilots. This thesis is focused on designing a low-cost training helicopter, to incentivise the labour market to increase its pool of private-license pilots, and to reduce the operating costs of companies that conduct in-house pilot training. The project will focus on the following areas, (a) Requirements Identification, (b) System Identification and (c) Aircraft-Level Integration in order to achieve this goal.

The outcome of the project is a helicopter specification that is low in its total cost. The general arrangement and cockpit/cabin layout of the helicopter was also developed as part of the deliverables of the research thesis.

#### **BIOGRAPHY OF SPEAKER**

ME5 Liu Jianlin is an Air Force Engineer from the Republic of Singapore Air Force. The thesis was written as part of the course requirement for his M.Sc. in Aerospace Vehicle Design. He is currently holding the appointment of an Aerosystems Centre Staff Officer in the Air Engineering and Logistics Department.