

The 2nd Anniversary of Aviation Service Research Centre at the Hong Kong Polytechnic University

Aviation Service Research Centre (ASRC) in The Hong Kong Polytechnic University (PolyU) has been recognized to develop aviation services and technologies as a leading role in Hong Kong. The 2nd Anniversary and projects demonstration was held on 16 November 2015, and as a partner and member, HAESL's representatives had been invited to take part in the event.



16 Nov 2015 – DGM, Mr Angus Barclay (3rd from left) pictured with other representatives of participating organizations for the 2nd Anniversary of the ASRC.

The journey of the partnership between HAESL and ASRC began 3 years ago. HAESL's former DGM Richard Kendall signed the Memorandum of Understanding with President of PolyU on 10 November 2012 to extend the cooperation between HAESL and PolyU. On 13 November 2013, ASRC Phase One building officially started to be servicing, which was a boost for the projects collaborated by HAESL and ASRC.



10 Nov 2012 – Former DGM Richard Kendall (1st from left) signed the Memorandum of Understanding with President of PolyU.



13 Nov 2013 – GMO, Mick Brown (4th from left) pictured with other representatives of participating organizations in The ASRC Phase One Opening Ceremony.



The event of the 2nd Anniversary of the ASRC started off with opening speeches by PolyU Council, Boeing (China), and Innovation and Technology Commission (ITC), followed by ASRC's demonstrations on Innovation and Technology Fund (ITF) projects. In the afternoon, there was an "Aviation Maintenance, Repair and Overhaul" (AMRO) workshop to cover several topics in the aviation market and reveal some achievements done through the projects. These projects aim to automate and standardise maintenance processes in order to improve the efficiency and accuracy, as well as overcome the long term undermanned problem in the market.

As a member of ASRC, HAESL has been involved in two of the revealed projects on aero engine component overhaul. The first one is fan blade leading edge restoration; ASRC has developed a computer numerical control (CNC) program working with a multi-axis milling machine for fan blade complex contours. First the machine probes and creates virtual sketches of fan blades in any shape, the system then calculates the correct amount to be machined. After that the machine restores the leading edges of fan blades to a serviceable standard. The second project is about sealing ring reformation. Sealing rings in aero engines often was found dimensional distortion after operation and they are required to be reformed back to appropriate outlines. A reformation device was tailor-made by ASRC which is able to scan the distortions on the rings and automatically restore their physical dimensions.

Both projects largely improve the accuracy and automation level as well as the turnaround time on the aero part maintenance, benefiting HAESL for its future capability expansion. Apart from the completed projects, several ITF projects are currently in-progress. All these projects symbolise the progress on the maturity of AMRO technologies in Hong Kong.