

Republic Polytechnic commissions first Virtual Aerodrome Laboratory at an Institute of Higher Learning in Singapore

Housed within RP's purpose-built hangar, the aerodrome laboratory will strengthen its aviation programme training

SINGAPORE, 6 December 2013 – Republic Polytechnic (RP) today commissioned its new Virtual Aerodrome Laboratory (VAL) developed by ST Electronics (Training & Simulation Systems) Pte Ltd, a subsidiary of Singapore Technologies Electronics Limited (ST Electronics). The VAL, which is the first of its kind at a tertiary institution in Singapore, re-creates an aerodrome in a virtual setting. Boasting a 120-degree screen, the simulator will provide students from RP's Diploma in Aviation Management an immersive learning experience. The system allows roles and scenarios to be simulated, including airport planning and design, air traffic management, airside and flight operations management, airport emergency preparedness and crisis simulation. Up to 360 students will benefit from the new facility and can engage in real-time interaction between various types of airport vehicles including planes, fire engines and ground vehicles. They can also role-play as ground controllers, air traffic controllers and pilots to gain practical skills that they will require on the job.

Hands-on training for emergency situations

A key benefit of using the VAL is the ability to create situations where opportunities for training are limited or dangerous in real life.

Republic Polytechnic's simulator has the capability of simulating emergency drills, such as an aircraft collision on the runway. Students will have to react to these types of situations, and practice their voice protocols through real-time role-playing, all in the safety of an aerodrome laboratory.

"Managing emergency situations such as a plane crash requires a coordinated effort amongst various parties. By providing our students with hands-on experience in these types of scenarios, Republic Polytechnic's new Virtual Aerodrome Laboratory will help ensure that they are familiar with the various protocols and procedures should they ever encounter such a situation on the job," said Dr Wang Jianguo, Director, School of Engineering, Republic Polytechnic.

Unparalleled realism

To enhance the simulator's realism, weather conditions in the various scenarios can be controlled. Instructors can choose from weather conditions such as sunshine, rain, snow or fog to allow students to gain experience in managing situations with different levels of visibility.

Furthermore, avatars are decked in the actual uniforms of various airport personnel, while the planes and runways are modelled after their real-life versions.

Fostering closer collaboration

Republic Polytechnic and ST Electronics (Training & Simulation Systems) have signed a Cooperation Agreement which will open up collaboration opportunities, including further development of the VAL and creating internship and industry project opportunities for RP students. ST Electronics (Training & Simulation Systems) will also support student learning with activities such as industry talks and training workshops.

"With ST Electronics' assistance, RP's aerospace students now have the opportunity to simulate the day-to-day operations of a Traffic Control Tower in the lab. They will encounter the same work environment pressure and problems in running a real-life tower and they will have to find appropriate and adequate solutions. We are confident that the laboratory will complement our Problem-Based Learning pedagogy and further enhance our students' industry readiness," noted Mr Yeo Li Pheow, Principal/CEO, Republic Polytechnic.

"ST Electronics (Training & Simulation Systems) is pleased to collaborate with Republic Polytechnic in implementing Singapore's first Virtual Aerodrome Laboratory in an institute of higher learning. The VAL will simulate a realistic environment for students to foster practical skills in aviation management." said Jeremy Foo, Senior Vice President / General Manager of ST Electronics (Training & Simulation Systems).

The Virtual Aerodrome Laboratory is housed within RP's hangar called The ARCH (The Aerospace Hub), which was opened in October 2012. With a built up space of 1,500 square metres, the hangar has all the facilities typically found in an actual industry aircraft hangar, with facilities for aircraft sheet metal repair, composite repair and non-destructive testing. Last year, RP also acquired a Learjet aircraft to equip its aviation management and aerospace engineering students with in-depth and hands-on opportunities to study aircraft structures, systems and engines.

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About Republic Polytechnic

The first educational institution in Singapore to leverage Problem-Based Learning approach for all its diploma programmes, Republic Polytechnic (RP) has six schools and two academic centres offering thirty-seven diplomas in Infocomm, Engineering, Applied Science, Technology for the Arts, Sports, Health & Leisure, Events and Hospitality, Enterprise, and Communication.

Republic Polytechnic is committed to nurturing innovation and entrepreneurial learning in an environment that develops problem-solving skills and lifelong learning opportunities. Its holistic, broad-based curriculum, covering culture, enterprise development and cognitive processes, prepares students for an active and meaningful role in society.

Republic Polytechnic strives for excellence and has achieved various international and national accreditations, including ISO9001, ISO14001, OHSAS 18001, SS540, Singapore Quality Class, People Developer, Innovation Class, and Service Class.

For more information, visit www.rp.edu.sg

About ST Electronics (Training & Simulation Systems)

ST Electronics (Training & Simulation Systems), a wholly owned subsidiary of Singapore Technologies Electronics Limited (ST Electronics), is a leading provider of simulation, edutainment, training services and solutions. Together with its subsidiaries, ST Education & Training, MÅK Technologies Inc., and Antycip Simulation, ST Electronics (Training & Simulation Systems) offers a full spectrum of modelling, simulation and training solutions for land, air and naval weapons systems, mobile learning solutions, interactive digital media platforms and training services, for a wide range of defence and commercial customers worldwide. For more information please visit www.stee.stengg.com

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