6-18-2013

Finishing Touches

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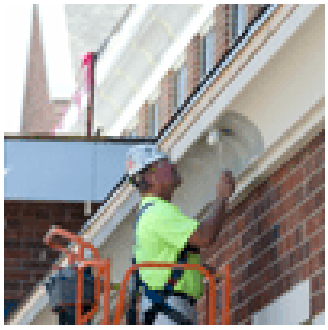

Finishing Touches

06.18.2013 | Research, Hot Topics, Campus and Community, Students, Science, Engineering

GE Aviation's Electrical Power Integrated Systems Center is receiving test equipment this week that will enable the testing of the complete electrical power system in an actual copper-bird aircraft.

The center is nearing completion for the official opening this fall of the 138,000-square-foot facility, which includes a four-story 50,000-square-foot office building connected to an 88,000-square-foot world-class electrical power laboratory. It's located on eight acres on River Park Drive on the University of Dayton campus.

“Next-generation aircraft will demand up to four times more power than today for an aircraft’s key functions and systems,” said Vic Bonneau, president of Electrical Power Systems for GE Aviation. "This center will yield system-level benefits so that our customers can more rapidly benefit from this trend in energy management, climate control, radars and sensors, silicon carbide-based power conversion and electric actuation, to name a few.”

The most recent equipment includes drive-stands, vibe tables and a temperature altitude chamber. The drive stands include dynamic engine simulation. One drive stand pair is configurable for up to 3,000 horsepower testing of very large generation equipment.

The lab will be "the intellectual heart and soul" of GE's electrical power business with potentially 150 to 200 researchers in the next five years depending on future research programs, according to GE Aviation officials.

“By expanding our electrical power modeling and simulation capability, this will allow us, with our customers, to predict how aircraft and hybrid vehicle electrical systems will perform and correct problems before hardware is built. This significantly decreases development time and improves on-time delivery of new aircraft,” Bonneau said.

The new $51 million research-and-development center will position GE to pursue business for the next generation of planes, many of which will be unmanned aerial vehicles (UAVs). GE is a big player in this emerging market. The University of Dayton Research Institute conducts surveillance research, primarily in area of sensors and lightweight composite materials for UAVs.

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