NIAR develops virtual walk-through for new WSU residence hall

Wichita, Kan. March 12, 2014 – A virtual walk-through of Wichita State University’s newest housing option, Shocker Hall, was recently created by the university’s National Institute for Aviation Research.

The video walk-throughs of the traditional (two shared bedrooms) and more private four-bedroom models were created to help students and parents visualize the rooms before enrollment. They are viewable on the Housing and Residence Life webpage at http://bit.ly/1pEdmPc.

The walk-through was developed by Jeff Fisher, a research associate in NIAR’s Virtual Reality Lab and 2012 graduate of WSU’s College of Engineering. Fisher used a three-step process that began with modeling the rooms in CATIA V5, modeling software that is used daily by NIAR and most aviation manufacturing companies. In order to add texture and lighting, the drawings were imported into Autodesk 3ds Max, which Fisher has previously used for aircraft cabin visualization. The final step involved importing thousands of screenshots in Adobe After Effects to create the video.

“The depth of the project was challenging,” Fisher said.

It required nearly 200 hours of work and required a quick turnaround, but Fisher is accustomed to problem-solving and learning new techniques for unique projects. He is also developing virtual training for holographic displays.

In recent years, Wichita State has increased its focus on integrating university departments, resources and capabilities to maximize the quality of education and research.

“This project is a prime example of how two university departments with different missions and capabilities can work together to advance the university as a whole,” said John Tomblin, NIAR executive director and vice president for research and technology transfer.

NIAR’s Virtual Reality Lab is located at the National Center for Aviation Training. The Virtual Reality Lab works closely with the CAD/CAM Lab and Reverse Engineering Labs to provide full-service modeling, visualization and prototyping services for the manufacturing industry.

Fisher began working for NIAR as a student assistant in 2007. In addition to working full-time for NIAR, he is also pursuing his master’s degree in aerospace engineering.

NIAR supports the aviation industry by providing research, development, testing, certification and training services. Its laboratories include Advanced Coatings, Aging Aircraft, CAD/CAM, Composites & Advanced Materials, Computational Mechanics, Crash Dynamics, Environmental Test, Full-Scale Structural Test, Mechanical Test, Metrology, Nondestructive Test, Research Machine Shop, Virtual Reality and the Walter H. Beech Wind Tunnel. NIAR operates on a nonprofit budget and is the largest university aviation
R&D institution in the U.S., located in Wichita, Kan., the “Air Capital of the World.”
www.niar.wichita.edu.

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