

# CTC's Ron Punako to Present "Grasping the Future: Virtual Hands Control for Fine Motor Tasks" at Interservice/Industry Training, Simulation and Education Conference

*I/ITSEC is World's Largest Modeling, Simulation & Training Conference*

## [Concurrent Technologies Corporation \(CTC\)](#)

Senior Software Engineer Ron Punako will be presenting his paper, "Grasping the Future: Virtual Hands Control for Fine Motor Tasks," at the 2016 [Interservice/Industry Training, Simulation and Education Conference \(I/ITSEC\)](#). I/ITSEC, which will be held from November 28–December 2, 2016, in Orlando, Florida, is the world's largest modeling, simulation, and training conference. The conference consists of peer-reviewed paper presentations, tutorials, special events, professional workshops, a commercial exhibit hall, a serious games competition, and STEM events for teachers and secondary students.

Immersive Learning Simulation (ILS) often employs rigid models or static animations to portray the way that human hands look and move, limiting fine motor training possibilities. Now, new affordable and available technologies have enabled high-fidelity hands visualization, behavior, and interaction within virtual environments. Ron's paper and presentation will discuss the cognitive and psychomotor training benefits of realistic virtual hands portrayal and fine motor interaction in equipment maintenance ILS.

The results of experimentation with virtual reality head-mounted displays, gesture recognition, and haptic feedback to incorporate fine motor hand interaction will be highlighted. Research focus is placed upon measurement of learner presence, or the feeling of "being there," when completing procedural equipment disassembly tasks using fully articulated hand models that look like the learner's own. The paper also discusses how this new and natural interaction paradigm can be leveraged for training use cases, such as instructing soldiers and mechanics on how to assemble and disassemble military vehicles and other equipment.

Contact Ron Punako, [punakor@ctc.com](mailto:punakor@ctc.com), 814-269-6538, for more details on CTC's work with [Immersive Environments](#).



*CTC's Ron Punako demonstrates how fine motor hand interaction can be improved in immersive learning simulations. His research will be presented at the upcoming 2016 Interservice/Industry Training, Simulation and Education Conference.*