Virtual Environments 2016

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– Posters and Demos –

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Keynote

Extreme Environments as a Catalyst for Innovation

Scott Parazynski

Abstract
This presentation highlighted defining moments in Dr. Parazynski's career where perseverance and multidisciplinary collaboration sparked innovative solutions under the most extreme conditions. It includes examples from space to the Himalayas, including innovative approaches to supporting Virtual Reality for medical applications.

Short Biography
Dr. Scott Parazynski is a highly decorated physician and astronaut, recently inducted into the US Astronaut Hall of Fame. He is a highly sought after keynote speaker on innovation, risk management, mentorship and leadership under adversity. Scott has lived and traveled all over the world, spending many of his grade school years in places such as Senegal, Lebanon, Iran and Greece. A graduate of Stanford University and Medical School, he went on to train at Harvard and in Denver in emergency medicine.

In 1992 he was selected to join NASA's Astronaut Corps and eventually flew 5 Space Shuttle missions and conducted 7 spacewalks. Mission highlights include a global ozone mapping flight; leading the first joint US-Russian spacewalk while docked to the Russian space station Mir; serving as Senator John Glenn's crewmate and "personal physician" and assembly of the Canadian-built space station arm.

In October 2007, Scott led the spacewalking team on STS-120, during which he performed 4 EVAs. The final EVA is regarded by many as one of the most challenging and dangerous ever performed. The tremendous coordinated effort in orbit and on the ground by Mission Control has been likened to the Space Shuttle and Space Station era's "Apollo 13 moment."

In addition to being a diver and accomplished mountaineer, Scott is also a commercial, instrument, multiengine and seaplane-rated pilot. On May 20, 2009, he became the first - and so far only - astronaut to stand on top of the world.

He is a prolific product developer, and serves on the Boards of several companies. He recently founded Apogee Interests to commercialize his extensive innovation portfolio, including medical devices, consumer products and gear developed for extreme environments.

Keynote

Innovation, Entrepreneurialism, and Intellectual Property from a Technologist's Point of View

Rudolph Darken

Abstract
We will discuss the key elements of taking an idea from its conception to commercialized product, with a particular focus on how this happens (or more importantly doesn't happen often enough) within universities. Technology transfer is how a technical innovation is able to exit the laboratory in order to become a product. How does that work? Who is involved? We will then discuss the open innovation model whereby technical innovations are spun out via licensing or sale, and they are also brought in via the same means. Innovation has become a sociological phenomenon, but we have to understand how it works in practice, how we can and should protect our ideas, and thus put our innovations in the best possible position to succeed. The discussion will conclude with thoughts on what universities can do to be a catalyst rather than a barrier to technical innovation and successful commercial ventures that have their roots in the university.

Short Biography
Rudolph Darken is Professor of Computer Science at the Naval Postgraduate School in Monterey, California. He is a former Director of the Modeling, Virtual Environments, and Simulation (MOVES) Institute. He has served on advisory boards for the NASA Ames Research Center, the National Science Foundation, the Engineering and Physical Sciences Research Council (U.K.) as well as several technology companies. He was an Associate Editor of Presence Journal (MIT Press). He received his D.Sc. and M.S. degrees in Computer Science from The George Washington University and his B.S. in Computer Science Engineering from the University of Illinois at Chicago. He is currently pursuing a J.D. degree from the Monterey College of Law, expected completion in December 2016.