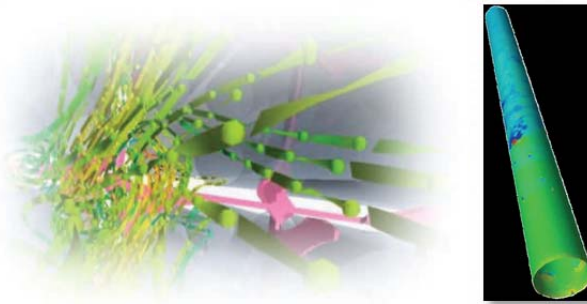


# Virtual Office Community and Computing Laboratory

## Description

The VOCC is a unique collaborative communication, and HCI centered computing, visualization and modeling research lab. It was custom designed and configured to support distributed collaborative coding, modeling and simulation activities for the CASL Energy Science Hub. Because of its leadership in scientific collaboration, VOCC was recently asked to support the Critical Materials Energy Science Hub, the ARMY Research Lab, and most recently, DOE's Innovation Crossroads Program.

VOCC specializes in providing technical expertise and capabilities to enable science consortiums to effectively manage innovation through distributed teams of scientists. VOCC is constantly researching optimal ways to provide physical and virtual collaborative research, instruments, tools, and paradigms to its unique and diverse scientific audience.



Core Instruments	
I-DEATE	5 uniquely configured collaborative work stations with multiple creative media sources
I-CREATE	14 to 48 million pixels hi-res 3D passive model display panel, AR podium, 12 special compute / display stations
CASPER	4K display wall to support data analytics in a nimble touch environment
IVAC	Multi-node, active tracking, 3D Tele-immersive / collaborative visualization research instruments (fixed and mobile)
Virtual Agile Communications Environment (VACE)	10 state-of- the art, custom hi- definition, telepresence instruments. Also collaborative Tele-immersion research instruments

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## Outcomes

- Improving computational engineering and analysis through modeling and simulation
- Seeking better ways to virtually connect fundamental research and technology development epicenters through a central collaborative resource exchange
- Building synergistic collaborative energy science, "work-social" networks
- Researching and developing new, collaborative modeling and simulation systems tools, techniques, and metrics
- Advancing human computer interaction in virtual and immersive environments

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