USC’s Viterbi School of Engineering Expanded Focus on Smart Oilfield Technologies

Intro

Building on its successful 13 years of operating the Center for Interactive Smart Oilfield Technologies (CiSoft) with Chevron, USC is expanding its partnership model into a broader “center of excellence” covering all aspects of its current and future smart oilfield strategy.

The new “center” is seeking new strategic partners with competencies in current smart oilfields, enabling expansion into new areas related to advanced sensors & monitoring, robotics, emerging analytics, data sciences, cyber & physical security, machine learning, and human-machine interfaces. The intent is to develop technologies and competencies in all aspects of integrated operations and smart oilfields.
NexSoft
Next Generation Smart Oilfield Technologies

**Vision**
The next generation of digital oilfields is here.

To meet the industry challenges ahead,
With a track record of leading R&D in Smart Oilfield Technologies,
USC offers an ‘eco-system’ of strategic partnerships
Committed to the required competencies
That enable innovations for new emerging areas, with
Business-focused R&D, education and commercialization sponsorship.
Updated Model for a Changing World: Focus Areas

“NexSoft”
Next Generation Smart Oilfield Technologies

Competencies:
- Petroleum Engrs
- Digital Engrs
- Digital Specialists

Data Platforms & Analytics
- Immersive Visualization & Modeling

Information & Networked Systems
- Integrity, Reliability & Resilience

Integrated Production Operations
- Smart Equipment & Machine Learning

MidStream Leverage
- Cyber and Physical Security & Surveillance

Robotics, AI & HMI
- Field Automation

Power
- Medical Leverage

Downstream Leverage

USC Viterbi School of Engineering
University of Southern California
Updated Model for a Changing World: Companies

“NexSoft”
Next Generation Smart Oilfield Technologies

IOC
Chevron
CiSoft

Oilfield Services
Operations Technology
IT/Big Data Systems Integration
Robotics

NOC
Field Automation
Engineering / Smart Equip

Projects enabled between companies
Partner Participation Options

“Tier 1” Full Partnership Companies

Strategic Relationship
- R&D
- Publications
- Continuing Education
- Competency Development
- Interns & Hires

Academic
- Educational Development
- Software Platform Donations
- Competencies
- Students/Faculty
- Interns & Hires

Niche Projects
- Joint R&D Development
- Faculty Sponsorship
- Concept-to-Prototype

Initial Engagement Options