Project makes NASA, other research available to offshore industry

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Offshore innovation may get easier - and less expensive - with a new online database launched by the University of Houston, through its partnership in the Ocean Energy Safety Institute. The Ocean Energy Technology Portal allows companies to search proven technologies developed by federal agencies and other organizations that could address some of their own research problems.

Worried about pipeline corrosion? Maybe NASA's work on a microparticle coating that can "self-heal" a scarred site would be a solution. A second NASA innovation could dramatically improve critical infrastructure monitoring with the use of a fastener equipped with radio frequency torque and tension sensing.

In addition to research from NASA, the database includes work from the Bureau of Safety and Environmental Enforcement (BSEE), the National Energy Technology Labs and the European Space Agency - about 100,000 projects in all. Several other international organizations have expressed interest, and more partners will be added, said Paul Robinson, program manager for the Ocean Energy Safety Institute (OESI), who has directed the project.

Jack James, a technology strategist at Johnson Space Center/NASA, said the agency has worked with the oil and gas industry before, so when Robinson approached with the idea, it seemed like a natural fit.

"That's part of the NASA mission," he said. "We explore space and

develop new technologies for the benefit of mankind."

OESI was established by BSEE in November 2013 to provide both industry and federal regulators reliable information about safety issues in offshore drilling. Three Texas universities - UH, Texas A&M University and the University of Texas at Austin - are partners in the institute, which is managed by the Texas A&M Engineering Experiment Station's Mary Kay O'Connor Process Safety Center.

A federal advisory group comprised of representatives from industry, federal agencies, nongovernmental organizations and the academic community recommended forming the institute after the 2010 Deepwater Horizon oil spill. It does not have regulatory authority but is charged with providing unbiased independent and science-based information.

As part of that, Robinson said BSEE asked the institute to review the state of research involving deepwater oil and gas. Most companies were working independently, he discovered, with little interaction or input from other research teams.

"There was obvious financial resource waste and limited collaboration with other industries," he said.

He proposed the portal to allow people to better coordinate, making publicly funded research more readily available. Robinson said private companies can offer their own research catalogues - either complete technologies or just the abstract. Many of the technologies included in the OETP include contact information for people who want to learn more. Find the portal here: http://www.OETP.org.

Now, with low oil prices forcing producers to cut their capital and research budgets, is the perfect time for the project, allowing them to

keep up with technology without starting every project from scratch, Robinson said.

"They know they have to keep advancing, or they'll be behind when the market comes back," he said.

Provided by University of Houston