



Message from the Conference Chair

On behalf of the Conference Committee, it is my great pleasure to welcome you to the 10th anniversary of the Rice Oil and Gas High Performance Computing Conference. This anniversary year marks a milestone in our continuing pursuit to provide participants with a platform to discover opportunities, broaden their knowledge, and advance their mission by engaging with some of the brightest and most talented leaders across oil and gas, technology, and academia.

Today's competitive landscape requires new and innovative approaches that leverage advances in computational technology to solve old problems. This spans advances in algorithms to high-throughput I/O systems designed to support exponentially increasing amounts of data, to scalable and sustainable facility operations and management. This year's talks, tutorials, and workshops highlight the next generation of technologies, along with cost recovery methodologies, deep learning techniques, and ideas for efficiently converging existing systems into next-generation architectures.

Whether it is solar, wind, nuclear, wave technologies, or a combination of these that drives future energy markets, hydrocarbons will continue to be critical to meet global energy needs in the short term. Moving forward it is critically important that we not only prepare the high-tech workforce that will be needed to support exploration, but do so with a focus in societal and environmental impact in mind, equipping the industry to deliver ecofriendly energy solutions. The Oil and Gas High Performance Computing Conference community continues to be a critical part of this by supporting community building and driving workforce development that challenges the expectations set forth by analysts and spurs new ideas among participants — sometimes transforming industries and creating future opportunities and innovations. There are business relationships formed here too, that upend conventional ways of doing business, both locally and globally. In a time of cost cutting, improved efficiency and innovation are critical, and I welcome the enthusiasm and energy you bring to this conference; without it we would not be celebrating our 10th anniversary.

Beyond this conference is an even greater audience comprised of students — across Texas, the U.S., and around the globe. With support from the conference, the Ken Kennedy Institute for Information Technology is able to help attract tomorrow's leaders into fields of study spanning computational science and engineering, high-performance computing, and data-science, helping them assimilate the skills needed by the industry today and tomorrow. Thank you to all our sponsors — your continued support takes on an added value this year through your engagement and commitment to the industry in tough times, preparing for a better future.

There is an abundance of resources in this two-day conference. I urge you to use your time here well; engage and network with our sponsors in the exhibit hall during breaks and connect and network with your colleagues and fellow HPCers. We bring you pre-conference training and timely workshop discussions that will help prepare you for the next challenge and bring you up to speed on the latest advances in technology, and much more. On behalf of all those who make this event possible — all of you — we hope you enjoy our conference. I challenge you to turn what you discover here into customized solutions and efficiencies for your companies so they in turn might boldly impact the energy industry and our economy. Remember that it is those whose resilience is greatest, whose willingness to buck the trend is most intense — *they* will be the ones who emerge to lead us into the future. I'm looking forward to the next ten years.

Best regards,

A handwritten signature in black ink, appearing to read "Jan E. Odegard". The signature is fluid and cursive, with the first name "Jan" being the most prominent.

Jan E. Odegard
Rice University
Associate Vice President, Office of Information Technology/
Executive Director, Ken Kennedy Institute for Information Technology