

IXPUG Middle East at KAUST 22-25 April 2018

The **Intel eXtreme Performance Users Group** meets in the **Middle East** for the first time **23-25 April 2018** (with a Welcome Reception on **Sunday, 22 April**) at the King Abdullah University of Science and Technology (KAUST) on the shores of Red Sea. IXPUG-ME invites participants to share their experiences on manycore platforms while exploring a new hemisphere of opportunity, where Intel multicore is well established with 6 Top 500 Intel systems in Saudi Arabia, alone. Powered by Shaheen, a Cray XC40 that entered at #7 in June 2015, more than one-third of the faculty at KAUST employ high performance computing as a primary means of scientific discovery and engineering design. Saudi Aramco, the world's most valuable company by assets, has set three major benchmarks on Shaheen in 2017, including: a production 100Hz seismic inversion, a trillion-cell simulation of the world's largest petroleum reservoir, and a 200,000-core simulation of a gas-oil separation plant. As the Gulf states transform themselves from petroleum-based economies to mixed service and information-based economies, high performance computing will be essential beyond energy simulations.

The 3-day workshop looks forward to submissions on innovative work from manycore developers and users in academia, industry and government labs, describing original discoveries and experiences that enable and promote efficient use of manycore systems. The 20 best-scored abstracts and draft presentations will be selected for 30-minute presentations; opportunities will also be offered to present shorter lightning talks pointing to posters. Intel and other leading researchers will give keynotes and tutorials on algorithms, applications, and architecture. Intel Fellow and Exascale Chief Architect **Al Gara** will deliver the keynote.

The host of IXPUG-ME, KAUST (<http://www.kaust.edu.sa>) is an international, graduate research university founded in 2007, and operating a top supercomputer since 2009. KAUST is dedicated to advancing science and technology through interdisciplinary research, education, and innovation. Located on the shores of the Red Sea about 70 km north of the metropolis of Jeddah, KAUST offers world-class residential and research facilities, and attracts top international faculty, scientists, engineers, and students to conduct curiosity-driven and goal-oriented research to address the world's pressing multi-generational scientific and technological challenges related to sustainability in energy, water, food, and the environment. Co-educational by charter, 40% of KAUST's students are women, one of the highest fractions of any engineering graduate school.



The first 50 participants to register from abroad are guaranteed convenient accommodation at the *KAUST Inn*, within the 45-sq km KAUST campus of academic, industrial park, and residential buildings. Participants may also choose the *Bay La Sun Hotel* in the shoreline community at the 183 sq-km King Abdullah Economic City on the northern border of the University, with daily bus transport provided. The KAUST campus offers stunning recreational opportunities amidst a live-work-play cosmopolitan community of over 100 nations. Participants will be invited to on-campus cultural activities and to a Red Sea sunset cruise.

For evolving details, see the conference website <https://ecrc.kaust.edu.sa/ixpug-me> and the IXPUG website <https://www.ixpug.org/ixpug-kaust-spring-conference-2018>. The site for accommodations will open in early January, and evaluation of abstracts will begin on 16 February, with the initial acceptance round notifications by 23 February 2018. Because of the need to procure Saudi visas, it is recommended that participants from outside of the country initiate their registration by 1 March 2018.