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**Creating a Worldwide Unconventional Revolution  
Through a Technically Driven Strategy**

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**Abstract:**

Unconventional development propelled the United States to produce more oil than it imports for the first time in 20 years. Increased production of domestic oil and gas profoundly impacted economic growth and job creation for the U.S. During this evolution, there was a need to address environmental regulations and infrastructure requirements in order to access the sheer volume of resources. Combined with today's horizontal drilling and hydraulic fracturing technology, a strategic development plan can be constructed for any country to create an unconventional energy opportunity. In this lecture, the experience from U.S development is utilized to provide a fully-integrated workflow for developing shale oil and gas reservoirs from exploitation to production.

Starting at the nano-scale, we will zoom into the pore structure to understand the storage and flow paths. Transitioning to the reservoir-scale, well testing and microseismic are utilized to define the flow capacity and estimate the stimulated volume. Learnings from this subsurface characterization is used to guide well completion, flowback, and production operations. The diagnostic methodology specific to each operation can be applied to identify geologically favorable areas and the best completion practice. As development progresses, opportunities to improve recovery can be magnified through optimum well spacing and refracturing. As a final step in the development, determining an appropriate enhanced recovery method is essential to access the remaining resources. Finally, example development scenarios are provided to demonstrate how a technically driven strategy is more effective to maximize value and make the unconventional revolution a global one.

**Biography:**

Basak Kurtoglu is Vice President in the Global Energy Group of Citigroup Investment Bank. Prior to Citi, she was Integrated Project Team Manager at Marathon Oil. She has been instrumental in assimilating multiple disciplines to evaluate and develop unconventional reservoirs. Kurtoglu earned her BS from Middle East Technical University, and her MS and PhD in petroleum engineering from Colorado School of Mines. Her numerous publications range from pore to reservoir scale analyses of unconventional reservoirs with an emphasis on enhancing oil recovery. She serves on the SPE Forum Series Coordinating Committee and the SPE Reservoir Description and Dynamics Advisory Committee.