

# ASME South Texas Meeting

Thursday, December 14, 2017

**Program:** The Machine that Made History – The Historic Landmark Waterwheel of Syria > 1000+ Years Ago!

**Speaker:** Mahmod Samman, Ph.D., P.E.– President, Houston Engineering Solutions – Houston, TX

For thousands of years prior to the industrial revolution, the waterwheel was mankind's only means of harvesting and utilizing large quantities of energy. Important in their own right, these ancient devices also paved the way for water mills, windmills, and modern turbines. The giant waterwheels that continue to operate on the river Orontes in Hama, Syria are unique in both size and age. With a diameter of 21 meters (69 feet), the Noria al-Muhammadiyah which dates to 1361 CE, is among the largest waterwheels ever constructed. In 2006, it was designated as an ASME historic landmark. In 2015, ASME published "Machines that Made History" and featured this landmark on its cover. This presentation includes a discussion of the development and types of waterwheels, their role in mechanical engineering history, the significance of this ASME landmark, and a status update on its current condition given the state of war in the country.

Dr. Samman holds a Ph.D. in Engineering Mechanics from Duke University and is a licensed professional engineer in Texas. He has thirty years of engineering experience in finite element analysis and fitness-for-service assessment. He has four issued and pending patents, 30 publications, and numerous industry reports. A Fulbright Scholar and ASME Fellow, he received the South Texas Section Herbert Allen Award for outstanding achievement by a young engineer and the Young Engineer of the Year Award from the City of Houston. He is a member of the Joint ASME/API Fitness-For-Service Standard Committee and a former chairman of STS.

**Reservations:** <https://www.brownpapertickets.com/event/3177455>

**Location:** [The Forest Club 9950 Memorial Drive](#) (near Chimney Rock)

**Directions:** From I-10, exit at Wirt / Chimney Rock turning south onto Chimney Rock. The first stop light is the intersection with Memorial. Turn left and travel two blocks east to the picket fences on the left. Turn left onto Saddlebrook and the Forest Club will be on your right.

**Times:** 5:30 p.m. to 6:15 p.m. Social Hour  
6:15 p.m. to 8:45 p.m. Dinner Buffet and Program

**Cost:** \$35 Regular Reservation  
\$50 at the door  
Students Only \$15

**ASME meetings are open to all. Membership is encouraged but not required to attend.**

Professional Development Hour (PDH) certificates will be available to participants at the conclusion of the event.