

Media Alert:

Meet ESI at the Turbomachinery Technical Conference & Exposition

Technical Talk on Numerical Approach for Real Gas Simulations

Who? [ESI Group](#) is a leading innovator in [Virtual Prototyping](#) software and services for manufacturing industries. Specialist in material physics, ESI has developed a unique proficiency in helping industrial manufacturers replace physical prototypes by virtual prototypes, allowing them to virtually manufacture, assemble, test and pre-certify their future products.

What? From June 26 to 30, 2017, ESI will attend the 62nd [Turbomachinery Technical Conference & Exposition](#) in Charlotte, North Carolina. Organized by the International Gas Turbine Institute of the American Society of Mechanical Engineers (ASME), the event, more commonly referred to as “ASME Turbo Expo”, is recognized as the must-attend event for turbomachinery professionals working in the turbine industry. The technical conference has a well-earned reputation for bringing together the best and brightest experts from around the world to share the latest in turbine technology, research, development, and application in the following topic areas: gas turbines, steam turbines, wind turbines, fans & blowers, Rankine cycle, and supercritical CO₂.

At ASME Turbo Expo, ESI engineer **Dr. Swati Saxena** will present her work on “*Numerical Approach for Real Gas Simulations – Flow Simulation for Supercritical CO₂ Centrifugal Compressor*”, based on the work performed by the author when she was working at [General Electric](#).



Image: Dr. Swati Saxena, Strategic Market Development Manager, ESI Group.

This presentation will deliver some technical insights in the emerging context of using carbon dioxide (CO₂) in closed loop power cycles. As these power cycles capitalize on the non-ideal gas behavior of CO₂, their analysis both at the system level and at the detailed component level requires an advanced equation of state. This paper will present numerical simulations of a low flow



coefficient supercritical CO₂ centrifugal compressor developed for a closed loop power cycle and explain how the 3D flow analysis for the flow near the critical point provides useful information for the designers to modify the current compressor design for higher efficiency.

When? 26-30 June, 2017

Where? Charlotte Convention Center, Charlotte, North Carolina, USA.

For more info, please visit: www.esi-group.com/company/events/2017/turbomachinery-technical-conference-exposition

For additional information, please contact:

Event Manager:

[Leah Charters](#)

+1 248 381 8231

Media Relations

[Céline Gallerne](#)

+33 1 41 73 58 46

About ESI Group

[ESI Group](#) is a leading innovator in [Virtual Prototyping](#) software and services. Specialist in material physics, [ESI](#) has developed a unique proficiency in helping industrial manufacturers replace physical prototypes by virtual prototypes, allowing them to virtually manufacture, assemble, test and pre-certify their future products. Coupled with the latest technologies, Virtual Prototyping is now anchored in the wider concept of the *Product Performance Lifecycle*, which addresses the operational performance of a product during its entire lifecycle, from launch to disposal. The creation of *Hybrid Virtual Twins*, leveraging simulation, physics and data analytics, enables manufacturers to deliver smarter and connected products, to predict product performance and to anticipate maintenance needs.

ESI is a French company listed in compartment B of NYSE Euronext Paris. Present in more than 40 countries, and addressing every major industrial sector, [ESI Group](#) employs about 1200 high-level specialists around the world and reported annual sales of €141 million in 2016. For more information, please visit www.esi-group.com.

Follow ESI

