

Improving Turbocharger Design

Speakers: Bryan Lobo

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Duration: 60 Minutes

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Increasing the power output of smaller engines, engine downsizing and reducing emissions are the current requirements of the industry. Turbocharged the engine is considered to be the preferred way to achieve this goal. Turbocharger design requirement include stringent specifications for performance, range, life, noise, size and efficiency - thus a multiphysics simulation approach is required. The process is accelerated by performing initial design iterations using 2D tools, to quickly filter designs, and then carrying out full 3D analysis on relatively smaller set of candidates.

In this webinar we will discuss how ANSYS tools can be used for fast, comprehensive and high-fidelity turbocharger design. ANSYS provides a full set of 1D, 2D and 3D tools within an integrated framework, ANSYS Workbench. A goal driven optimization using 2D through flow solution will be demonstrated for rapid scanning of candidate designs. A detailed mechanical and CFD simulations will be discussed to verify the structural integrity and the aerodynamic system design of the full assembly, ensuring that all performance requirements are met.

Join us for this free 30 min webinar and see how our users are benefiting from the insight that computer simulation offers.

Specific Applications: Turbocharger Compressor and Turbine



Speaker Profile:

Bryan Lobo is a Senior Technology Specialist at ANSYS, and has close to 9 years of work experience in CFD and Turbomachinery. He holds a Masters in Aerospace Engineering from the Indian Institute of Technology, Kharagpur. His work focuses on many applications areas in Turbomchinery from Gas Turbine compressors, to Turbochargers, pumps, etc to name a few.

Webcast series: Designing Superior Turbomachinery Products using ANSYS Simulations