

Turbine Design Optimization Software Gives AT Tuzinkiewicz New Capabilities



TECHNOLOGY

NASA Glenn developed a suite of software for the optimization and design of advanced turbines and compressors.

COMMERCIAL APPLICATION

AT Tuzinkiewicz Consulting, LLC provides aero/thermal design, performance analysis, and CFD analysis to clients developing jet engines and advanced power generators. The company's core competencies lie in the design and optimization of radial and axial compressors and land-based turbines. AT Tuzinkiewicz aimed to expand the scope and scale of the projects it could undertake.



NASA Glenn software streamlines AT Tuzinkiewicz's turbine design operations.

GLITeC located optimization and design codes that were developed by the NASA Glenn Research Center that the company believed would successfully mesh with and strengthen its portfolio of technical offerings. GLITeC drafted the appropriate software use agreements and assisted AT Tuzinkiewicz in acquiring the codes.

SOCIAL/ECONOMIC BENEFIT

The software codes streamline the complex process of preliminary design optimization. Without the codes, individual projects would require three times as much development time. Overall, the codes have saved AT Tuzinkiewicz hundreds of thousands of dollars in licensing fees and time. "These programs are indispensable," says Andrew Tuzinkiewicz, president.

NASA APPLICATIONS

The NASA Glenn Research Center is NASA's Center of Excellence in Turbomachinery. A major goal is to streamline the turbine and compressor design process. The codes mentioned above have dramatically reduced the costs and time associated with traditional turbine and compressor design. Turbines and compressors designed using these codes can be found in aircraft, hybrid-turbine electric busses, and advanced power generation devices.

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