

## **Anvar Gilmanov, Ph.D.**

Dr. Gilmanov is a Principal Investigator at Combustion Science & Engineering. Anvar has considerable expertise in numerical methods, computational fluid dynamics, heat transfer, turbulence modeling (LES), and high-performance computing. He has worked extensively in developing numerical methods for modeling high-speed flows, including the use of adaptive grids for resolving flow features in supersonic flowfields. He also participated in the development of parallel multi-block Navier-Stokes code (Chem3D), which is applicable to solve problems with a mixture of reacting gases at turbulent flow, as well as the Material Point Method (MPM), which is used for solving the governing equations for the thin shells. These two approaches were combined in Chem3D to simulate the interaction of Ballute (Balloon + Parachute) with the supersonic gas flow. Dr. Gilmanov is involved with projects ranging from fundamental to very applied.