ABSTRACT

Most of gas turbine performances evolving coatings on combustion chambers because of its high temperature withstand ability improves combustion process. As a part of this some works which is considerable for improving performances stage wise compressor blades also coming in to consideration. Deterioration of blades also affects total performance of turbine, this leads to engine performances depended on gas turbine efficiency. In order to stream line minimum gaps occurred in long life cycles of gas turbine linked engines thermal stresses on blades also becoming a needful factor of research.

In present research two blades with different stages has been coated for high temperature thermal analysis to check sustainability after coating. Even though combustion chambers also coated with high temperature sustainability additional advantages of coating on blades will decrease deterioration of blades and life time of blades will increase. A conceptual based linkage has been applied in research that overall performance of engine relates with turbine and compressor efficiencies.