



NEXTGEN AERONAUTICS
Inventing Technologies for the Next 100 Years of Flight

**Speaker: Dr. Jayanth N. Kudva,
President of NextGen Aeronautics, Inc.**

“Morphing Wings: From Concept to Reality”

Morphing aircraft wings are defined as wings that undergo very large changes in geometry (span, area, chord, sweep etc.) such that the wing configuration is optimized for widely varying flight conditions (e.g., loiter, dash and high-speed maneuvers). They represent the next step in aircraft wing design, and will lead to multi-role, multi-function aircraft.

Under a three-year program from DARPA, NextGen has designed and developed a revolutionary morphing aircraft wing and successfully tested it in a wind tunnel at transonic Mach numbers and operational load conditions.

This talk presents a background of morphing wing concepts, details of the design and development work performed under the DARPA program, and the future of morphing aircraft.

Dr. Kudva received his B.S. in Aeronautical Engineering from the Indian Institute of Technology in 1973 and his M.S. and PhD degrees in Aerospace Engineering from Virginia Tech in 1976 and 1979, respectively. He worked at Northrop Grumman Corporation from 1980 to 2002. At Northrop, he managed a structures R&D group and led the division activities on smart materials and adaptive aircraft. In 2003, he founded NextGen Aeronautics with the explicit purpose of developing revolutionary technologies and designs for the next century of flight. He is an Associate Fellow of AIAA.

T (310) 891-2814
F (310) 891-2825
C (310) 995-4802

2780 Skypark Drive, Suite 400
Torrance, CA 90505
jkudva@nextgenaero.com