



# Air Force Research Laboratory | AFRL

*Science and Technology for Tomorrow's Air and Space Force*

## **Success Story**

### **PROPULSION DIRECTORATE SCIENTIST NAMED ASME FELLOW**



Dr. Rengasamy Ponnappan of the Propulsion Directorate, was recently named an American Society of Mechanical Engineers (ASME) Fellow. ASME Fellows are honored for promoting the art, science, and practice of mechanical engineering throughout the world. The honor recognizes Dr. Ponnappan's significant achievements and contributions such as leading and conducting research efforts on the thermal management aspects of aircraft, spacecraft, and weapon systems.



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### **Accomplishment**

Dr. Ponnappan, a senior mechanical engineer and program manager at the directorate, made significant contributions in heat pipes and the thermal sciences. He pursued thermal management technologies for more than 25 years and organized and chaired sessions in many technical conferences.

He coined the concept of double-wall artery wick, explored gas-loaded liquid metal heat pipe startups, and developed facilities at Wright-Patterson Air Force Base, Ohio, for testing heat pipes in a high-G centrifuge. An aircraft alternator manufacturer for improving bearing life and reliability licensed his patent on rotor cooling structure. Dr. Ponnappan also pioneered research on the high-speed rotating heat pipe.

He is author of 5 US patents and more than a 100 research publications. He is an associate Fellow of the American Institute of Aeronautics and Astronautics and past-chair of the ASME Dayton section.

### **Background**

ASME promotes and enhances the technical competency and professional development of its members through quality programs and activities in mechanical engineering. Fellow is the highest elected grade of membership within ASME, the attainment of which recognizes exceptional engineering achievements and contributions to the engineering profession.

Propulsion  
Awards and Recognition

### **Additional information**

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (04-PR-05)