

TRENDS IN INTERNATIONAL AVIATION RESEARCH

K NAIDOO

CSIR

ABSTRACT

This talk presents insight into some of the current and emerging trends in aviation research being conducted across the world's aviation research institutes. Drivers of technology development and innovation within the world of aviation include the rising demand for cleaner, quieter, faster, cheaper and safer air transportation. These demands continue to drive investment, R&D and enhancement in the field of aircraft propulsion, aircraft structures, aerodynamic design as well as air operations amongst other fields. Some of these include advancements in materials research, manufacturing technology, novel aircraft configurations as well as new propulsion concepts and technologies. Some of the advancements and trends in these domains will be presented in this talk. At the same time, there has been widespread adoption, use and development in the field of unmanned aerial vehicles. Even though there has been significant advancement in this area, there remains significant room for innovation as the demand for enhanced performance and integration into civil airspace rises. Trends in the field of unmanned systems will be discussed briefly. This talk will also include the authors view on the relevance of these technologies and trends to South Africa now and in the future.