

SPASE

Per informazioni:
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Programma: Aero

Titolo: A modelling of virtual reality controlled real time-real location in synchronicity at short distance for safely

Tipo Progetto: Collaborativo Medium/small

Descrizione: 1

SSIMAVNAS project aims to develop a modelling of virtual reality controlled real time-real location in synchronicity at short distance for safely landing of air vehicles in zero visibility conditions in airport approaching. The virtual reality system will integrate the software systems to be developed and computer aided electronic and imaging kits. Hardware required for the virtual reality system can be obtained using current production knowhow and capabilities. Similarly, current GPS and GIS technologies will be used for adaptation process to virtual

- Adaptation of testing software to virtual reality hardware
- Selection of ground flight system and line navigation devices to be used for the project
Selection of test tools and development of verification and validation software
Development of navigation systems and GPS embedded software
Planning to put all software in use under real-time flight and line navigation conditions

OBJECTIVES:

Today, many useful systems and devices are used for safely landing airvehicles to airports and/or non-airport land or sea. However, planning of landing to airports and other landing environment by pilots differ according to weather conditions. Especially, experiences shows that many flights are cancelled or landing to urgent decision may taken for landing to another airport since the visibiliy conditions are not satisfied because of fog, dust, precipitation, etc. in winter or in the case of moving between cold and warms climates.

Actually, in most cases, the problem is not inappropriate surface conditions causing the low visibility conditions (icing, snowfall, standing water, etc.); the problem is "low visibility".

Cancellation of urgent flights for health and security requirements in addition to the cancellation of commercial flights under low visibility conditions caused by weather conditions is another important issue.

The innovative idea behind the project is focused on the above issues to provide pilots with visibility under zero level conditions caused by weather conditions.

The project will provide pilots with virtual reality imaging system for safely visual landing to surface under low visibility conditions caused by fog, dust, rain, snowfall, etc.

High increase in efficiency of grand landing-departure durations will provide at least 10-15% saving in aviation fuel consumption and, as a result, decrease in flight operation costs and decrease in air pollution. Moreover, the project will support safely flight of unmanned aerial vehicles managed by co-pilots.

Tipo Ente: PMI

Partner richiesto: airport as end user

- Non-profit research organizations (aeronautics)
- Coordinator