RTO Technical Publications:

a quarterly listing

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This is a listing of unclassified AGARD and RTO technical publications NASA received and announced in the NASA STI Database during the quarter cited above. Requests for reports on the list may be made by document identification number (19990092805) from the NASA Center for AeroSpace Information, 7121 Standard Drive, Hanover, MD 21076-1320. Requests may also be made by e-mail ***help@sti.nasa.gov***, fax (301) 621-0134, or telephone (301) 621-0390. Where stock permits, requests will be filled with printed copies; if printed copies are not available, microfiche copies will be supplied. This listing can also be viewed and downloaded via the NASA STI Program home page at *<http://www.sti.nasa.gov>*.

19990092805 Research and Technology Organization, Systems Concepts and Integration, Neuilly-sur-Seine, France

Sensor Data Fusion and Integration of the Human Element ***La Fusion de Donnees de Senseur et l'Integration du Facteur Humain***

February 1999; 244p; In English, 14-17 Sep. 1998, Ottawa, Ontario, Canada; See also 19990092806 through 19990092825; Original contains color illustrations

Report No.(s): RTO-MP-12; AC/323(SCI)TP/4; ISBN 92-837-1010-X; Copyright Waived; Avail: CASI; A11, Hardcopy; A03, Microfiche

This volume contains the Technical Evaluation Report, the Opening Address, the Keynote Address and the 20 unclassified papers, presented at the Systems Concepts and Integration (SCI) Panel Symposium held in Ottawa, Canada from 14th to 17th September 1998. The papers presented covered the following headings:(1) Characteristics of Operational Requirements; (2) System Design Techniques and Technologies; (3) Integration of Human Operators with Complex Systems; (4) System Applications; and (5) Lessons Learned and Future Trends.

Author

North Atlantic Treaty Organization (NATO); Research and Development; Conferences; Multisensor Fusion; Algorithms; Human-Computer Interface; Systems Engineering; Complex Systems

19990102970 Research and Technology Organization, Applied Vehicle Technology Panel, Neuilly-sur-Seine, France

Planar Optical Measurement Methods for Gas Turbine Components ***Methodes de Mesure Optiques Planaires Pour Organes de Turbomoteurs***

September 1999; 148p; In English, 16-17 Sep. 1999, Cranfield, Cleveland, OH, UK, USA; See also 19990102971 through 19990102977; Original contains color illustrations

Report No.(s): RTO-EN-6; AC/323(AVT)TP/20; ISBN 92-837-1019-3; Copyright Waived; Avail: CASI; A07, Hardcopy; A02, Microfiche

This lecture series covers the recent advances of planar optical measurement techniques with respect to their applicability to gas turbine component tests. During the last years much progress has been achieved in various known techniques, and new methods have been developed from which a significant increase of the experimental output of propulsion tests and therefore remarkable cost reduction can be expected. to bring this status into the knowledge of the propulsion specialists is the aim of this lecture series.Its theme is focused on laser measurement methods for the analysis of the internal flow and reaction processes in propulsion engines. It will address techniques for the measurement of flow velocity, flow density, pressure, temperature and species concentration. Only those methods are introduced which are far enough developed to be applicable to the rough test conditions of propulsion experiments. The course will inform the audience about the fundamentals of the advanced measurement techniques, as well as demonstrate their use in the context of practical applications. The material in this publication was collected

from the research centers of the different NATO nations. It will transfer to the propulsion engineers in a condensed manner the information of the newest capabilities of modern test techniques thus providing the knowledge base for tomorrow's measurement instrumentation of propulsion test facilities. NATO's specific interest in sponsoring this event is based on the requirement for engines of extreme performance characteristics which cannot be realised without further improvements of both CFD and measurement technologies.
Author
Conferences; Flow Measurement; Flow Velocity; Gas Turbine Engines; Optical Measurement

19990114335 Research and Technology Organization, Neuilly-sur-Seine, France
RTO Highlights 1998, December 1998
December 1998; 36p; In English
Report No.(s): RTO-HIGHTLIGHTS-98/1; Copyright Waived; Avail: CASI; A03, Hardcopy; A01, Microfiche

This document reviews the accomplishments of the RTO during the 1998 year. It supersedes the house publication "Highlights" which was a bi-annual publication of AGARD. The edited technical presentations made to the Research and technology board in Norway in 1997 are published. The 1998 von Karman medals and the Scientific achievement award recipients are announced.
CASI
Defense Program; International Cooperation