

# Advances in Aerospace Science and Technology



www.scirp.org/journal/aast

# **Journal Editorial Board**

ISSN Print: 2473-6708 ISSN Online: 2473-6724 http://www.scirp.org/journal/aast

## **Editor-in-Chief**

Prof. Roberto Sabatini RMIT University, Australia

## **Editorial Board**

Prof. Heuy Dong Kim	Andong National University, South Korea
Dr. Craig Lawson	Cranfield University, UK
Dr. Danyck Nguewo	Diamond Aircraft Industries, Austria
Dr. Chung-Kiak Poh	Aero-Persistence Research LLP, Malaysia
Prof. Toshiaki Setoguchi	Saga University, Japan
Dr. Paolo Tortora	University of Bologna, Italy
Prof. Vladimir Zhuravlev	Moscow Aviation Institute, Russia



## **Table of Contents**

## Volume 2 Number 4

## December 2017

Automatic Approach and Landing Trajectory Planner for Unpowered Reusable Launch Vehicle

Studies on the Internal Ballistics of Composite Solid Rocket Propellants Incorporating Nano-Structured Catalysts

Mukesh R., Sivasubramaniyam R., Elangovan R. R., Abhinaya Sree R., Harish R., Rajashree D., S. K. Kanhar.....48

## Advances in Aerospace Science and Technology (AAST) Journal Information

#### SUBSCRIPTIONS

The *Advances in Aerospace Science and Technology* (Online at Scientific Research Publishing, <u>www.SciRP.org</u>) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates: Print: \$39 per issue. To subscribe, please contact Journals Subscriptions Department, E-mail: <u>sub@scirp.org</u>

#### SERVICES

Advertisements Advertisement Sales Department, E-mail: service@scirp.org

#### **Reprints (minimum quantity 100 copies)** Reprints Co-ordinator, Scientific Research Publishing, Inc., USA. E-mail: <u>sub@scirp.org</u>

#### COPYRIGHT

#### Copyright and reuse rights for the front matter of the journal:

Copyright © 2017 by Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY). http://creativecommons.org/licenses/by/4.0/

#### Copyright for individual papers of the journal:

Copyright © 2017 by author(s) and Scientific Research Publishing Inc.

#### Reuse rights for individual papers:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

#### Disclaimer of liability

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

#### **PRODUCTION INFORMATION**

For manuscripts that have been accepted for publication, please contact: E-mail: <a href="mailto:aast@scirp.org">aast@scirp.org</a>





# Advances in Aerospace Science and Technology

## ISSN Print: 2473-6708 ISSN Online: 2473-6724 http://www.scirp.org/journal/aast

Advances in Aerospace Science and Technology (AAST) is an open access journal. The goal of this journal is to provide a platform for researchers and practitioners all over the world to promote, share, and discuss various new issues and developments in all areas of Aerospace Science and Technology.

All manuscripts must be prepared in English and are subject to a rigorous and fair peer-review process. Accepted papers will immediately appear online followed by printed hard copy. The journal publishes papers including but not limited to topics as listed below:

**Aeronautics:** Aircraft, Rotorcraft, Airship, UAS, Gliders, Airframe, Engine, Systems, Avionics, Airport, Airline, MRO, Maintenance, ATM, Society, History, Law, Environment.

**Astronautics:** Spacecraft, Satellites, Structures, Propulsion, Astrionics, Photovoltaics, Operation, Debris, Philosophy.

**Aerospace Sciences:** Aircraft Design, Spacecraft Design, MDO, Construction, Materials, Aeroelasticity, Manufacturing, Thermodynamics, Fluid Dynamics, CFD, Acoustics, Flight Mechanics. Performance, Stability and Controls, Navigation, Astrodynamics, Simulation, Testing, Sensing, Transmission, Automation, Software Engineering, Air Conditioning, Ergonomics, Hydraulics, Pneumatics, Kinematics, Sanitation, Systems Engineering, Management, Economics, Security, Safety, Reliability, Airworthiness, Documentation.

Perspective: OEM, Supplier, Operator, Research, Teaching, Passenger.

## We are interested in:

- Original Research Papers.
- Comments where an author can present an idea with theoretical background but has not yet completed full research needed for an original paper, likewise a useful method, a small finding or discovery.
- Reviews in all aspects of Aerospace Science and Technology.
- Symposia or workshop papers published as supplements.
- Book reviews with comments and critiques.

For more details about the journal, please access the website and contact the Editorial Office.

## Website and E-Mail

http://www.scirp.org/journal/aast Email: aast@scirp.org

## What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

## What is Open Access?

Aging

Advances in Biological

Chemistry

t and D

Advances in

Entomology

Applied Mathematics

Engineering

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, worldwide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- · Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



Soft

Ĩth

Website: http://www.scirp.org Subscription: sub@scirp.org Advertisement: service@scirp.org