Journal of Defense Studies and Resource Management
ISSN: 2324-9315
2020
Vol.8 No.2

An overview of wind tunnel perforated wall corrections

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Abstract

The results obtained during an experiment performed in a wind tunnel must be subjected to a correction process, whose purpose is to eliminate the influence of the limited dimensions of the airflow on the flow around the model. This is absolutely necessary because it is desired to bring the results to a form that is independent of the characteristics of the laboratory in which they were obtained. One of the many inevitable difficulties that characterize the experiments conducted in a wind tunnel is the interaction between the flow and the walls of the experimental chamber. Therefore, for the highest possible accuracy of the results, it is imperative to determine the effect of the walls on the flow around the model. This problem has been intensively studied, and several techniques for correcting the influence of the walls were determined. Regarding the perforated walls wind tunnels, even though they were designed to minimize the effect of the walls, these corrections are still necessary. The aim of this paper is to present an overview of the correction methods applied in a perforated wall wind tunnel

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Biography:

Mihaela Manea has completed her Master studies in Aerospace Engineering at “Politehnica” University of Bucharest. She is a PhD Student at the The Doctoral School of the Faculty of Aerospace Engineering, Bucharest, Romania

Speaker Publications:

This work has been funded by the European Social Fund from the Sectoral Operational Programme Human Capital 2014-2020, through the Financial Agreement with the title "Scholarships for entrepreneurial education among doctoral students and postdoctoral researchers (Be Antreprenor!)", Contract no. 51680/09.07.2019 - SMIS code: 124539

2nd International Conference on Aerospace, Defense and Mechanical Engineering; Webinar- August 17-18, 2020.

Abstract Citation:

Mihaela Manea, An overview of wind tunnel perforated wall corrections, Aerospace 2020, 2nd International Conference on Aerospace, Defense and Mechanical Engineering; Webinar-August17-18,2020 (https://aerospace.enggconferences.com/abstract/2020/an-overview-of-wind-tunnel-perforated-wall-corrections)