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Mechanical Engineering

INFRARED THERMAL AND VISUAL IMAGE ANALYSIS FOR THE MODELLING OF PROPERTIES IN CASCADING PARTICLE CURTAINS

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Abstract

To be completed at later date.

Acknowledgements

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1 Introduction

Understanding temperature distributions in Engineering applications plays an invaluable role toward understanding the effectiveness of design. As the most frequently measured physical quantity, the quantification of temperate values and their distributions allows for design goals to be achieved in a far more succinct manner and plays a key role in a diverse range of engineering systems. One particularly challenging engineering process that proves problematic in obtaining thermal data for is the particle curtain.

Particle curtains are defined as a stream of particles falling a fixed distance through a gas or fluid phase [1]. They are very common in industrial drying, particularly in the minerals and food industry [1].

1.1 Objectives

2 Literature Review

References

[1] S. Afshar, *Modelling and infrared thermal imagery of hot particle curtains*. PhD thesis, James Cook University, 2015.