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NUMERICAL INVESTIGATIONS OF SMOKE MANAGEMENT IN ROAD TUNNEL WITH AND WITHOUT CURTAINS

By

Eng. Hashim Ali Neama AL-Akam

A Thesis Submitted to the Faculty of
Engineering at Cairo University in Partial
Fulfillment of the Requirements for the Degree of
MASTER OF SCIENCE

In
MECHANICAL POWER ENGINEERING

FACULTY OF ENGINEERING, CAIRO UNIVERSITY

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Title of Thesis:
NUMERICAL INVESTIGATIONS OF SMOKE MANAGEMENT IN ROAD TUNNEL WITH AND WITHOUT CURTAINS

Key Words:
(Smoke Management; Vehicular Tunnels; Ventilation; Visibility; FDS)

Summary:
Smoke is the deadliest factor in vehicular tunnels fire since smoke spreads in heading harmonize with passenger’s evacuation way. It reduces visibility and can cause fatalities by suffocation.
This research presents a numerical study of the effect of extracting the smoke system of ventilation on smoke spread inside the vehicular tunnel, solid curtain with transverse system 2018 by using FDS

DISCLAIMER

I hereby declare that this thesis is my own original work and that no part of it has been

Submitted for a degree of qualification at any other university or institute.

I further declare that I have appropriately acknowledged all sources used and have cited them in the references section.

Name: Date:

Signature:

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