

DECLARATION CERTIFICATE

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no materials previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the University or another institute of higher learning, except where due acknowledgment has been made in the text.

Chandra Sekhar Mohanta

PhD Research Scholar

SAP ID: 500024838

University of Petroleum & Energy Studies

Dehradun-248007 India &

Indian Oil Corporation Limited

Research & Development Centre

Faridabad-121007

India