



THE ASSAM
ROYAL GLOBAL UNIVERSITY
— GUAHATI —

CRITERION 1

CURRICULAR ASPECTS

METRIC NO.
1.3.3

M. Tech Mechanical Engineering

Field Work / Research Project / Internship



A study on

**ENVIRONMENT FRIENDLY BIODIESEL DERIVED FROM
JATROPHA OIL: FOCUS ON OPTIMIZATION OF PROCESS
PARAMETER FOR MECHANICAL EXTRACTION AND
TRANSESTERIFICATION**

A Report submitted in partial fulfilment of the requirements for the degree of

MASTER OF TECHNOLOGY

in

MECHANICAL ENGINEERING

Offered by

**ROYAL SCHOOL OF ENGINEERING &
TECHNOLOGY (RSET)**

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**MODELLING AND EXPERIMENTAL VALIDATION OF RANQUE-HILSCH
VORTEX TUBE WITH NOVEL GEOMETRY**

A Dissertation Submitted to The Assam Royal Global University In Partial Fulfilment of the
Requirements for the Award of the Degree of

Master of Technology
In
Thermal & Fluid Engineering



By
Hussain Salman Khurshid
Roll No- (174022003)

Under the Guidance of
Prof. Dr. Rajeev Mohan Bhatnagar
Professor

Royal School of Engineering & Technology
The Assam Royal Global University
Session: July-June, 2017-2019

Forwarded

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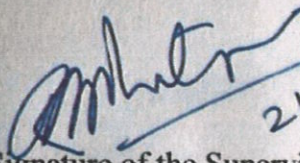
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CERTIFICATE

This is to certify that the dissertation submitted by Hussain Salman Khurshid (Roll No. 174022003) titled '**MODELLING AND EXPERIMENTAL VALIDATION OF RANQUE-HILSCH VORTEX TUBE WITH NOVEL GEOMETRY**' is a record of the research work done by him/her during the academic year 2018-2019 under my/our supervision in partial fulfilment for the award of Master of Technology in Thermal & Fluid Engineering. He/she has fulfilled the requirements under the university regulations for dissertation.

Place: Royal Global University

Date: 02-07-2019


2/7/2019

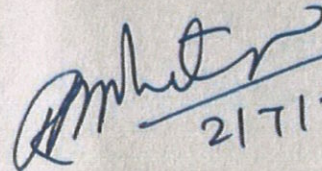
Signature of the Supervisor

Prof. Dr. Rajeev Mohan Bhatnagar

Department of Mechanical Engineering

Designation- Head of the department

Royal Global University

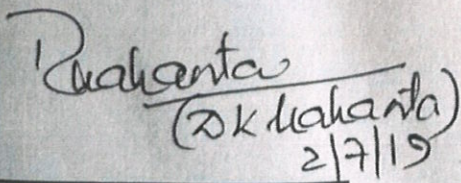

2/7/2019

Signature of the Head of the Department

Prof. Dr. Rajeev Mohan Bhatnagar

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(Dr. Rajeev Mohan Bhatnagar)
2/7/19

Signature of Examiner

DECLARATION

I, Hussain Salman Khurshid, hereby declare that the dissertation, titled '**MODELLING AND EXPERIMENTAL VALIDATION OF RANQUE-HILSCH VORTEX TUBE WITH NOVEL GEOMETRY**' is a record of original research work undertaken by me as the partial fulfilment for the award of the degree of Masters of Arts in Clinical Psychology. I have completed this study under the supervision of Prof. Dr. Rajeev Mohan Bhatnagar, Department of Mechanical Engineering.

I also declare that this dissertation has not been submitted for the award of any degree, diploma, associateship, fellowship or other title. I hereby confirm the originality of the work and that there is no plagiarism in any part of the dissertation.

Hussain Salman Khurshid
Signature of the candidate

Place: Guwahati

Date: 01-07-2019

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ACKNOWLEDGEMENT

At the onset, I would like to express my heartfelt gratitude to my guide Prof. Dr. Rajeev Mohan Bhatnagar, Professor, The Assam Royal Global University, Guwahati, Assam who directed and aided me immensely in this project by sharing his immense knowledge and advice.

Secondly, I would like to thank our honourable Vice-Chancellor Prof. S. P. Singh to providing me all the opportunities, without whose corporation this study would not have been possible.

I also extend my sincere thanks to The Principal of Royal School Of Engineering & Technology, Dr. B. Banerjee Sir for providing me this opportunity.

I also thank Mr. Sivaramakrishnan Natesan for helping me out in CFD simulation.

Furthermore I would like to thank Head of the department, IIT Guwahati, Prof. Santosh K. Dwivedy, Scientific officer Rituraj Saikia and Lab instructor Nip Bora for giving all support and opportunities without whom this accomplishment would not have been possible.

I would also like to thank my family and friends for being my side. Specially Priyanku Bharadwaj, Swapnil Anjan Bora, Parveez Ahmed and Arjanur Hussain for supporting me and helping me out in every problem.

Last but not the least, I thank all who have directly or indirectly helped me in my work without whom my work as well as report would have been unsuccessful.

Hussain Salman Khurshid.

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