



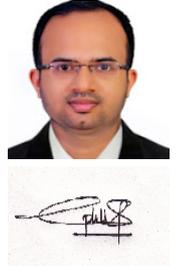
Anand Nagar, Krishnankoil - 626126, Srivilliputtur (via), Virudhunagar District, Tamilnadu.

APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:24-06-2020

Department	MECHANICAL ENGINEERING	Application No.	20200126
Area of Research	THERMAL ENGINEERING	Research Mode	PART TIME

Name :BENPHIL C MATHEW
Date of Birth / Age :24-10-1988 / 31 Years
Gender :MALE
Category :OC
e-Mail ID :benphilipcm@gmail.com
Mobile :9400830360



Father's/Husband's Name	MATHEW PHILIP	Father's/Husband's Occupation	BUSINESS
Family Income	300000	Residential Type	RURAL
Birth Place	KOTTAYAM	Mother Tongue	MALAYALAM
Religion	CHRISTIAN	Martial Status	MARRIED
Aadhaar No.	616322142293	PAN No.	AXHPM3221D
Physically Challenged	NO	Type of Disability	-
Address for Communication: CHANDRATHIL HOUSE CHANNANIKADU P O KOTTAYAM KOTTAYAM DISTRICT KERALA INDIA Pin-686533		Permenant Address: CHANDRATHIL HOUSE CHANNANIKADU P O KOTTAYAM KOTTAYAM DISTRICT KERALA INDIA Pin-686533	

Qualification						
Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
M.TECH	INTERNAL COMBUSTION AND TURBOMACHINERY	CALICUT UNIVERSITY	2014	8.03	FIRST	REGULAR
B.TECH	MECHANICAL ENGINEERING	MAHATHMA GANDHI	2011	70	FIRST	REGULAR

Experience					
Organization	Designation	Experience From	Experience TO	Work Nature	
MANGALAM COLLEGE OF ENGINEERING	ASSISTANT PROFESSOR	2014-09-17	2020-06-24	TEACHING	
COLLEGE OF ENGINEERING ADOOR	ASSISTANT PROFESSOR	2014-07-07	2014-09-16	TEACHING	

Payment Details				
Transaction ID	Reference	Date of transaction	Amount	Status
20200126_200630120947	SSBI8946737077	30-06-2020	600	SUCCESS

OPTIMIZE LIMITATIONS IN A HEAT PIPE BY VARYING FLUID PROPERTIES AND WICK STRUCTURES

OVERVIEW

A heat pipe is a high heat flux, passive heat transfer device which uses the evaporation, condensation, and surface tension of a working fluid to attain an extremely high thermal conductivity. Broadly speaking, in terms of a heat pipe, the vapour flow from the evaporator to the condenser is caused by the vapour pressure difference. Meanwhile the liquid flow from the condenser to the evaporator is produced by the forces, such as capillary force and gravitational force. Regardless of the orientation of the heat pipe the basic principles are the same. Hence it is effective to enhance the heat transfer by concentrating on the optimum flow of evaporated vapour and condensed liquid.

OBJECTIVES

The main objectives of heat pipe design has been focused on

- high performance
- light weight
- low cost

Methodology for above thesis work can be summarized as follows:

- Establish laboratory facilities for heat pipe fabrication and testing.
- Specifications of the Heat Pipe

Grooved type wick: Depending on the shape of the grooves, there is a difference in performance. Manufacturing costs are low with this type of heat pipe because the grooves are easier to make, however the technique is much more susceptible to gravity and can be orientation specific in use.

Micro groove: Miniature heat pipes with micro axial grooves can be successfully used in electronic components cooling systems.

Flat heat pipe (FHP): FHP increases in the maximum heat load capacity.

Nano fluids: Fluid consist of various nano particle for increasing the effectiveness of the heat pipe.

- Perform tests regarding the heat transfer efficiency and temperature characteristics of heat pipes.
- To determine the efficiency of the heat pipe at varying fluid properties.
- To determine the efficiency of the heat pipe at varying wick structure (multiple layers) and wick bed alignment.
- Validate experimental results using computational analysis.

Submitted By: Benphil C Mathew



FACULTY OF ENGINEERING

Whereas it has been certified by duly appointed Examiners that

Benphil. C. Mathew

is qualified to receive

the Degree of Master of Technology (M.Tech.)

in Branch *Internal Combustion Engines and Turbo Machinery (Mechanical Engineering)*

he having been placed in **First Class with Distinction** with

Cumulative Grade Point Average (CGPA) *8.03*

at the Examination held in **June 2014** (Reg.No. **ETAMCCT005**)

The Senate of the University of Calicut hereby confers on him

the Degree of

Master of Technology

with all the Rights, Privileges and Honours thereunto appertaining.

Given under the seal of the University



Vice - Chancellor



CALICUT UNIVERSITY P.O.
Kerala, INDIA
PIN - 673 635
Date **30/05/2016**

No. 0596856

Register No. 405083
&
Year May 2011

Mahatma Gandhi University

(Established by Kerala State Legislature by Notification No. 3431/Leg.C1/85/Law, dated 17th April 1985)



FACULTY OF ENGINEERING & TECHNOLOGY

The Syndicate of the Mahatma Gandhi University

hereby makes known that

Benphil. C. Mathew

has been admitted to the

Degree of Bachelor of Technology

under Mechanical Branch

he/she having been certified by duly appointed examiners to be qualified to receive the same, and having been by them placed

in the First Class at the

examination held in May 2011.

Given under the seal of the University.

University Buildings,
Priyadarshini Hills P.O.
Kottayam - 686 500
Kerala, India



Dated 23 January 2012.

[Signature]
Vice-Chancellor



POST GRADUATION PROGRAMME UNDER CREDIT SEMESTER SYSTEM

FINAL GRADE SHEET

Date : 06.11.2014

NAME OF PROGRAMME: MASTER OF TECHNOLOGY IN INTERNAL
COMBUSTION ENGINES AND TURBO
MACHINERY(MECHANICAL
ENGINEERING)

NAME OF CANDIDATE: BENPHIL C MATHEW

REGISTER NO. : ETAMCCT005

MONTH&YEAR : JUNE, 2014

The following is the cumulative grades awarded to the candidate at the Final Semester Degree Examination(CUCSS) , JUNE 2014

Course Code	Course Title	Credits	Letter Grade	Credit Point	Date Of Exam
SEMESTER I					
MIT10 101	APPLIED MATHEMATICS	4	D	24.00	1/2013
MIT10 102	ADVANCED THERMODYNAMICS	4	B	32.00	1/2013
MIT10 103	ADVANCED FLUID MECHANICS	4	B	32.00	1/2013
MIT10 104	ADVANCED HEAT AND MASS TRANSFER	4	C	28.00	1/2013
MIT10 105C	ADVANCED HEAT AND MASS TRANSFER	4	C	28.00	1/2013
MIT10 105C	DIRECT ENERGY CONVERSION SYSTEMS	4	C	28.00	1/2013
MIT10 106P	IC ENGINE LABORATORY	2	B	16.00	1/2013
MIT10 107P	SEMINAR	2	B	16.00	1/2013
Semester-I		SGPA-I : 7.33			
SEMESTER II					
MIT10 201	COMBUSTION AND EMISSION IN I C ENGINE	4	B	32.00	7/2013
MIT10 202	COMPUTATIONAL FLUID DYNAMICS	4	B	32.00	7/2013
MIT10 203	PLANT MAINTENANCE AND SAFETY	4	B	32.00	7/2013
MIT10 204A	INTERNAL COMBUSTION ENGINE DESIGN	4	C	28.00	7/2013
MIT10 205B	DESIGN AND ANALYSIS OF THERMAL SYSTEMS	4	C	28.00	7/2013
MIT10 206P	SEMINAR	2	S	20.00	7/2013
MIT10 207P	MINI PROJECT	2	B	16.00	7/2013
Semester-II		SGPA-II : 7.83			
SEMESTER III					
MIT 10 301B	AUTOMOTIVE ENGINE SYSTEMS	4	B	32.00	12/2013
MIT 10 302A	INDUSTRIAL ENERGY MANAGEMENT	4	A	36.00	12/2013
MIT 10 303P	INDUSTRIAL TRAINING	1	B	8.00	12/2013
MIT 10 304P	MASTERS RESEARCH PROJECT(PHASE-I)	6	A	54.00	12/2013
Semester-III		SGPA-III : 8.67			
SEMESTER IV					
MIT10 401P	MASTERS RESEARCH PROJECT PHASE-II	12	A	108.00	6/2014
Semester-IV		SGPA-IV : 9.0			
Programme Total Credits Acquired : 75 (Core: 55, Elective: 20, Dissertation: 0) CGPA : 8.03					



Prepared by

Checked by

Section Officer

Controller of Examinations

AR/DR/JR (Exams)

Mahatma Gandhi University

(Established by Kerala State Legislature by Notification No. 3431/Leg.CI/85/Law, dated 17th April 1985)



Book No. : 25

Section : EI- XXV

Register No. 405083

MEMORANDUM

Serial No. : 11

KOTTAYAM,

Dated: 15 JUL 2011

The following marks were awarded to Shri/Smt. Benphil C Mathew
at the Eighth Semester (Final) B.Tech. Degree Examination held in May 2011

Branch: Mechanical Engineering

SUBJECTS	Marks awarded	Minimum marks required for a pass		Maximum marks
		Complete Pass	Pass in individual subject	
A. Production Engineering	Written 55 Sessional 43 Total 98	40	40	100
B. Automobile Engineering	Written 55 Sessional 42 Total 97	40	40	100
C. Production Planning and Control	Written 61 Sessional 46 Total 107	40	40	100
D. Machine Design and Drawing II	Written 74 Sessional 43 Total 117	40	40	100
E. Elective - II <u>Project Management</u>	Written 62 Sessional 41 Total 103	40	40	100
F. Elective - III <u>Management Information System</u>	Written 61 Sessional 44 Total 105	40	40	100
G. Mechanical Measurements Laboratory	Practical 76 Sessional 41 Total 117	40	40	100
H. Project and Seminar	Sessional 88	-	-	100
L. Viva-Voce	35	20	25	50
Grand Total	867	600	-	1200
Carry over marks of I & II to VII Semesters	5265	-	-	7500
Aggregate	6132	-	-	8700
Aggregate in words	<u>Six, One, Three, Two</u>			

Pass Minimum: Complete Pass: 40% of Written/Practical for each subject and 50% of overall aggregate. Pass in Individual Subject: 40% of Written/Practical and 50% of the total of each subject.

Marks entered by : [Signature]
Marks checked by : [Signature]
Section Officer : [Signature]

From,

Benpbil. C Mathew,

Chandratbil (H)

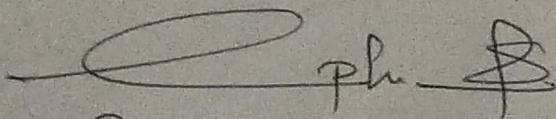
Channanikadu, P.O

Kottayam.

Respected Sir,

As I was not able to get the transfer certificate from college where I did my post-graduation due to current situations, kindly grant me permission to submit the same on the date of admission.

Yours' faithfully



Benpbil. C Mathew.



(Approved by AICTE, Affiliated to MGU / APJ Abdul Kalam Technological University, NAAC Accredited & ISO Certified Institution)

MLMCE/Exp/2019

10/04/2019

EXPERIENCE CERTIFICATE

This is to certify that **Mr. Benphil. C. Mathew** had been working as Asst. Professor in the Department of Mechanical Engineering at Mangalam College of Engineering from **17th September 2014** till date.

During the period, we found him to be sincere, hardworking, and dedicated with a professional attitude. We wish him success in all future endeavors.

This certificate is issued as per his request for **Ph D** application purpose.



Benphil C. Mathew
PRINCIPAL

10/4/2019

आयकर विभाग
INCOME TAX DEPARTMENT



भारत सरकार
GOVT. OF INDIA

BENPHIL C MATHEW

MATHEW PHILIP

24/10/1988

Permanent Account Number

AXHPM3221D

Signature



08/01/2009



ഇന്ത്യ തിരഞ്ഞെടുപ്പ് കമ്മീഷൻ
തിരിച്ചറിയൽ കാർഡ്

**ELECTION COMMISSION OF INDIA
IDENTITY CARD**

WYU0020958



സമ്മതിനാമകളുടെ പേര് : ബെൻഫിൽ സി മാത്യു

Elector's Name : Benphil C Mathew

അച്ഛന്റെ പേര് : മാത്യു ഫിലിപ്പ്

Father's Name : Mathew Philip

Sex: സ്ത്രീ/പുരുഷൻ : M / പു

Date of Birth : 24/10/1988

ജനനത്തീയതി

WYU0020958

Address : 341 (16/414)

Chandrathil

8, Channanikadu

Panachikkadu Grama Panchayath

Pincode : 686533

വിലാസം : 341 (16/414)

ചന്ദ്രത്തിൽ

8, ചാന്നാനിക്കാട്

പനച്ചിക്കാട് ഗ്രാമ പഞ്ചായത്ത്

പിൻ കോഡ് : 686533

ഇലക്ഷൻ റെഗിസ്ട്രേഷൻ ഓഫീസർ
കോട്ടയം തിരഞ്ഞെടുപ്പ് വിഭാഗം

Electoral Registration Officer

097 KOTTAYAM LA Constituency

Place : Kottayam

സ്ഥലം : കോട്ടയം

Date / തീയതി : 17-09-2008

റെഗിസ്ട്രേഷൻ വാർഡിൽ, പുതിയ സ്ഥലം പേര് ചേർക്കുവാൻ
അപേക്ഷ നൽകുമ്പോൾ ഈ കാർഡ് നസൽ കൂടി
ബാധകമാക്കേണ്ടതാണ്

In case of change in address, mention this Card No. in the
relevant Form for including your name in the roll at the changed
address and to obtain the card with same number

ANNEXURE-I

CERTIFICATE FROM THE ORGANISATION WHERE THE CANDIDATE IS
EMPLOYED

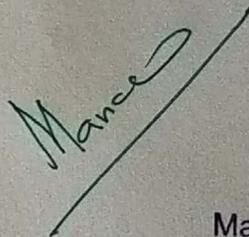
Certified that **Mr. Benphil C Mathew** is, employed as **Assistant Professor** in the **Mechanical Engineering** Department of **Mangalam College of Engineering**.

We have no objection in forwarding his/her application for the Ph.D. Research Programme.

FOR PART TIME:

The candidate will be permitted to undertake part time study in the University/College and will be allowed to be present for discussions with the supervisor, attending course works, conduct of experiments and participations in seminars and related presentations. Further the required facilities at our organization will also be provided to the candidate for doing research.

Date: 26.06.2020



Dr. MANOJ GEORGE, Ph.D
Principal
Mangalam College of Engineering
Vettimukal P.O, Ettumanoor
Kottayam, Kerala - 686 631

Signature of the Head of Organization with office seal