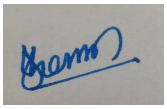
KALASALINGAM
ACADEMY OF RESEARCH AND EDUCATION
(DEEMED TO BE UNIVERSITY)
Under sec. 3 of UGC Act 1956. Accredited by NAAC with "A" Grade

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

APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:10-12-2020

Department	AUTOMOBILE ENGINEERING	Application No.	202020088
Area of Research	INDUSTRIAL ENGINEERING	Research Mode	PART TIME



Name :KEVIN THOMAS

Date of Birth / Age :20-02-1985 / 35 Years

Gender :MALE

Category :OC

e-Mail ID :kevinthomas39@gmail.com

Mobile :9633968895

Father's/Husband's Name	M S THOMAS	**Father's/Husband's Occupation**	PENSIONER
Family Income	2,50,000	**Residental Type**	RURAL
Birth Place	KOTTAYAM	**Mother Tongue**	MALAYALAM
Religion	CHRISTIAN	**Martial Status**	MARRIED
Aadhaar No.	951247967989	**PAN No.**	ARRPT8447Q
Physically Challenged	NO	**Type of Disability**	-

Address for Communication:	**Permenant Address:**
MURIYAICKAL (H) DIVINE NAGAR , KURISUMMOODU PO CHANGANACHERRY KOTTAYAM DISTRICT KERALA INDIA Pin-686104	MURIYAICKAL (H) DIVINE NAGAR , KURISUMMOODU PO CHANGANACHERRY KOTTAYAM DISTRICT KERALA INDIA Pin-686104

Qualification

Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
M TECH	INDUSTRIAL ENGINEERING AND MANAGEMENT	MG UNIVERSITY KOTTAYAM	2014	6.69	II	REGULAR
BE	AUTOMOBILE ENGINEERING	ANNA UNIVERSITY CHENNAI	2010	3631	I	REGULAR

Experience

Organization	Designation	Experience From	Experience TO	Work Nature
SREE NARAYANA INSTITUTE OF TECHNOLOGY ADOOR	ASSISTANT PROFESSOR	2012-08-01	2020-12-10	TEACHING

Payment Details

Transaction ID	Reference	Date of transaction	Amount	Status
202020088_201210120437	VHMP9544819463	10-12-2020	600	SUCCESS

Research Proposal

KEVIN THOMAS

Overview of Thesis

Industrial engineers address the efficient utilization of resources to produce quality, as well as cost competitive goods and services in a healthy and efficient work environment. Industrial engineering covers a broad-spectrum including production planning and control, manufacturing systems and processes, facilities design, human factors, occupational safety, quality control, systems reliability, and systems analysis and design with a strong emphasis on advanced computing.

The objectives of my Ph.D. in Industrial Engineering program are to provide the knowledge and develop the skills that find the relation between the GDP growth of India and the automobile industry.

Motivation and Problem Statements

Constraints to industrial growth

- **Inadequate infrastructure:** Physical infrastructure in India suffers from substantial deficit in terms of capacities as well as efficiencies. Lack of quality of industrial infrastructure has resulted in high logistics cost and has in turn affected cost competitiveness of Indian goods in global markets.
- **Restrictive labour laws:** The tenor of labour laws has been overly protective of labour force in the formal sector.
- **Complicated business environment:** A complex multi-layered tax system, which with its high compliance costs and its cascading effects adversely affects competitiveness of manufacturing in India.
- **Slow technology adoption:** Inefficient technologies led to low productivity and higher costs adding to the disadvantage of Indian products in international markets.
- **Inadequate expenditure on R&D and Innovation:** Public investments have been constrained by the demands from other public service demands and private investment is not forthcoming as these involve long gestation periods and uncertain returns.
- The policy aims to harness existing strengths in sectors like **automobiles and auto-components,** electronics, new and renewable energy, banking, software and tourism.
- The policy also aims to create globally scaled-up and commercially viable sectors such as waste management, medical devices, renewable energy, green technologies, financial services to achieve competitiveness.

Literature Review

The Indian automobile industry is growing remarkably after 1991 following India's growing openness, income of the people, the arrival of new and existing models, easy availability of finance at relatively low rate of interest, and price discounts offered by the dealers and manufacturers. Although the automobile demand depends on number factors, this study attempts to explore the interactions between India's automobile sales and the hike in fuel prices, lending rate, and GDP per capita in the automobile industry in India. Hence, this study has applied the cointegration and the vector error correction models to analyse the possible causal relations between the variables mentioned above. The results find the evidence of a positive and long-run relationship between automobile sales and GDP per-capita and the remaining variables have the inverse relationship with automobile demand. As we can clearly see, the higher GDP leads to higher volume of automobile sales. However, interest rate, and fuel price have a negative relationship with both passenger and commercial vehicles sales. Each of these factors plays a key role in determining the level of auto demand. The passenger and commercial vehicles demand model estimation through unit root test found that they have long-term, positive equilibrium relationship with the GDP per-capita. The error correction term is negative and statistically significant. This study may suggest that if the Government may help by mandating higher fuel efficiencies for vehicles and provide facilities for improving credit availability and reducing dependence on foreign oil that may trigger the demand for sales in Indian automobile industry.

Data collection

The data pertaining to the dependent variable consists of automobile sales in India. Whereas, the independent variables include Gross Domestic Product (GDP), Interest rate, wholesale price indices of automobiles and all commodities and wholesale price indices of fuel, power, light and lubricants. Data on automobile production and sales can be taken from the two automotive associations, namely Society of Indian Automobile Manufacturers (SIAM) and Automotive Component Manufacturers Association (ACMA). The wholesale price indices of automobiles and all commodities can collect from the Ministry of Statistics and Programme Implementation.

Research Methodology

Qualitative Research

Conclusion

India became the fourth largest auto market in 2019 displacing Germany with about 3.99 million units sold in the passenger and commercial vehicles categories. India is expected to displace Japan as the third largest auto market by 2023

The two wheelers segment dominates the market in terms of volume owing to a growing middle class and a young population. Moreover, the growing interest of the companies in exploring the rural markets further aided the growth of the sector.

India is also a prominent auto exporter and has strong export growth expectations for the near future. In addition, several initiatives by the Government of India and major automobile players in the Indian market is expected to make India a leader in the two-wheeler and four-wheeler market in the world by 2025.

The automobile industry is supported by various factors such as availability of skilled labour at low cost, robust R&D centers, and low-cost steel production. The industry also provides great opportunities for investment and direct and indirect employment to skilled and unskilled labour.

Indian automotive industry (including component manufacturing) is expected to reach Rs. 16.16-18.18 trillion by 2026.

In this study I will research how automotive industries can support to increase the GDP of India.

Research Deadlines - expecting to complete the research by 2024

Sl. No 123467

Register No. 80050175

Government of Kerala

STATE BOARD OF TECHNICAL EDUCATION

This is to certify that KEVIN THOMAS

is awarded the Diploma in Automobile Engineering (Three Year Course)

he/she having completed the prescribed course of study in the Government Polytechnic College , Vennikulam

and having passed the Final Examination held in November 2003 *He/She is placed in the* Second *Class.*

Thiruvananthapuram,
22 - 3 - 2007

V.K.SARALA

JOINT CONTROLLER OF
TECHNICAL EXAMINATIONS (KERALA)
(Issued on behalf of the State Board of
Technical Education, Kerala.)

GCPT

Anna University

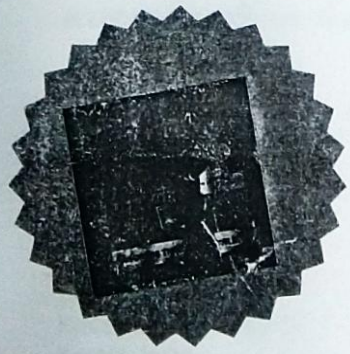
Reg. No.91506102307/RG

The Syndicate of the Anna University hereby makes known that **KEVIN THOMAS** *has been admitted to the* **DEGREE OF BACHELOR OF ENGINEERING** *in* **AUTOMOBILE ENGINEERING** *under the Faculty of Mechanical Engineering, having completed the prescribed programme of study and having been certified by the duly appointed examiners to be qualified to receive the same, and has been placed in* **FIRST CLASS** *at the Examination held in* **APRIL 2010.**

Given under the Seal of the University

8/4/11

SAJUMON K.T
Sr. Lecturer
Dept. of Mechanical Engineering
Rajiv Gandhi Institute of Technology
Velloor P.O., Kottayam-686 501



Chennai 600 025
India
December 2010

Controller of Examinations *Registrar* *Vice-Chancellor*

GUM210208454

Register No. & Year 2031/March 2013
300258/February 2014

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

Kevin Thomas

has been admitted to the

Degree of Master of Technology

under Industrial Engineering and Management *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 Second Class *at the examination held in* February 2014

Given under the seal of the University.

University Buildings,
Kottayam - 686 560
Kerala, India

Dated. 03 December 2014

Vice-Chancellor

ANNA UNIVERSITY CHENNAI, CHENNAI - 600 025

Folio No. H938733

K1077705710175

B.E. DEGREE EXAMINATIONS

CONSOLIDATED STATEMENT OF MARKS

NAME OF THE CANDIDATE	KEVIN THOMAS	REGISTER NO.	91506102307
COLLEGE OF STUDY	915: SACS-M.A.V.M.M. Engineering College	MONTH & YEAR OF LAST APPEARANCE	April 2010
PROGRAMME & BRANCH	B.E. Automobile Engineering	REGULATIONS	2004

SEM.	SUBJECT CODE	SUBJECT TITLE	MAX	MIN	MARKS SECURED	MONTH & YEAR OF PASSING
03	AT1201	Applied Thermodynamics	100	50	052	NOV 2007
03	AT1202	Automotive Petrol Engines	100	50	052	NOV 2007
03	AT1203	Fuels and Lubricants	100	50	059	NOV 2007
03	MA1201	Mathematics - III	100	50	050	NOV 2009
03	ME1202	Fluid Mechanics and Machinery	100	50	061	NOV 2007
03	ME1206	Applied Engineering Mechanics	100	50	057	NOV 2008
03	AT1204	Fuels and Lubricants Lab	100	50	087	NOV 2007
03	AT1205	Two and Three Wheeler Lab	100	50	084	NOV 2007
03	ME1204	Fluid Mechanics and Machinery Lab	100	50	086	NOV 2007
04	AT1251	Automotive Diesel Engines	100	50	063	APR 2008
04	AT1252	Mechanics of Machines	100	50	054	APR 2008
04	CE1262	Strength of Materials	100	50	055	NOV 2008
04	EC1264	Electronics and Microprocessors	100	50	059	APR 2008
04	MA1253	Probability and Statistics	100	50	051	NOV 2009
04	MH1151	Engineering Materials and Metallurgy	100	50	054	NOV 2008
04	AT1253	Engine Testing Lab	100	50	082	APR 2008
04	AT1254	Computer Aided Machine Drawing	100	50	093	APR 2008
04	EC1265	Electronics and Microprocessors Lab	100	50	085	APR 2008
05	AT1301	Automotive Electrical and Electronics	100	50	078	NOV 2008
05	AT1302	Automotive Engines Components Design	100	50	065	NOV 2008
05	AT1303	Automotive Chassis	100	50	073	NOV 2008
05	AT1304	Vehicle Dynamics	100	50	055	NOV 2008
05	CY1201	Environmental Science and Engineering	100	50	054	APR 2009
05	ME1304	Engineering Metrology and Measurements	100	50	063	NOV 2008
05	AT1305	Auto Electrical and Electronics Lab	100	50	094	NOV 2008
05	AT1306	Automotive Chassis Components Lab	100	50	087	NOV 2008
05	AT1307	Computer Aided Engine Design Lab	100	50	094	NOV 2008
05	GE1352	Communication Skills Laboratory	100	50	090	NOV 2008
06	AT1351	Automotive Chassis Design	100	50	068	APR 2009
06	AT1352	Computer Aided Vehicle Design Characteristics	100	50	059	APR 2009
06	AT1353	Automotive Pollution and Control	100	50	086	APR 2009
06	AT1354	Automotive Transmission	100	50	063	APR 2009
06	MG1351	Principles of Management	100	50	063	APR 2009
06	AT1002	Alternate Fuels and Energy Systems	100	50	065	APR 2009
06	AT1355	Reconditioning Lab	100	50	094	APR 2009
06	AT1356	Automotive Engine Components Lab	100	50	089	APR 2009
06	AT1357	Computer Aided Chassis Design Lab	100	50	093	APR 2009
07	AT1401	Vehicle Maintenance	100	50	087	NOV 2009
07	AT1402	Vehicle Body Engineering	100	50	076	NOV 2009
07	ME1401	Introduction of Finite Element Analysis	100	50	054	NOV 2009
07	MG1401	Total Quality Management	100	50	057	NOV 2009
07	AT1005	Two and three Wheeled Vehicles	100	50	074	NOV 2009
07	ME1008	Robotics	100	50	063	NOV 2009
07	AT1403	Vehicle Maintenance Lab	100	50	097	NOV 2009
07	AT1404	Computer Aided Manufacturing Lab	100	50	094	NOV 2009
08	MG1452	Engineering Economics and Cost Analysis	100	50	075	APR 2010
08	AT1007	Transport Management	100	50	078	APR 2010
08	AT1008	Automotive Safety	100	50	066	APR 2010
08	AT1453	Project Work	200	100	193	APR 2010

End of Statement

Classification : FIRST CLASS

Total Marks (from 3rd to 8th semester): 3631 / 5000

Percentage (rounded to nearest integer) : 73

Controller of Examinations * Anna University Chennai * Chennai-600 025.

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KRISHI BHAVAN THRICKODITHANAM Pin - 686105 Date.....

SIBY. T. NEENDISSERY Msc (Ag)
Agricultural officer
Krishi Bhavan
Thrickodithanam Pin - 686 105

Medium of Instruction : ENGLISH

Chennai - 600 025.

Mahatma Gandhi University

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

Section: EI XXXIV
Serial No.: 1704278

Student ID: MTAA2010E026027834

Kottayam,

27-May-2014

MEMORANDUM

The following marks were awarded to Shri./Smt KEVIN THOMAS

candidate with Register No. 300258 at the Fourth Semester M Tech Degree Examination February 2014

SUBJECTS	Credit	Grade/GPA Awarded	Marks								
			External			Internal			Total		
			Awarded	Min for Pass	Max	Awarded	Min for Pass	Max	Awarded	Min for Pass	Max
FACULTY OF ENGINEERING AND TECHNOLOGY											
M TECH: INDUSTRIAL ENGINEERING AND MANAGEMENT											
IEM 4001 Dissertation	20	D	71	60	150	120	75	150	191	150	300
IEM 4002 Master's Comprehensive Viva Voce		-	63	50	100				63	50	100
TOTAL FOR Semester IV									254	200	400
Semester IV - GPA	20	7.00									
TOTAL FOR Semester I									660	550	1100
Semester I - GPA	25	6.28									
TOTAL FOR Semester II (Reg No: 2031, March 2013)									665	550	1100
Semester II - GPA	25	5.92									
TOTAL FOR Semester III									127	75	150
Semester III - GPA	10	9.00									
GRAND TOTAL									**1706**	**1375**	**2750**
									(One Seven Zero Six)		
Cumulative Grade Point Average	80	**6.69**									

*********End of statement*********

Checked by:

Section Officer:

CONTROLLER OF EXAMINATIONS

GOVERNMENT OF KERALA

RAJIV GANDHI INSTITUTE OF TECHNOLOGY

KOTTAYAM - 686501

No. 332/12 Date: 16-11-12

TRANSFER CERTIFICATE

1. Name of student ..... KEVIN THOMAS
2. Date of birth (in figures) 20-02-1985
   (in words) Twentieth February Nineteen Eighty Five
3. Caste and religion ..... Christian RC
4. Admission No. 7872
5. Date of admission 16-09-2010
6. Class to which admitted ..... S1 Industrial Engg & Management
7. Date of leaving 20-09-2012
8. Class from which received ..... S4 Industrial Engg & Management
9. Whether qualified for promotion to a higher class ..... Completed
10. Whether all fees and other dues have been paid ..... Yes
11. Whether the student was in receipt of fee concession ..... No
12. Date of application of T.C. 27-07-2012
13. Date of issue of T.C. 16-11-2012
14. Reason for leaving ..... Completion of Course
15. Institution to which the student intends proceeding .....

16/11/2012

(College seal)

Principal

PRINCIPAL
RAJIV GANDHI INSTITUTE OF TECHNOLOGY
KOTTAYAM

SNIT® ADOOR

SREE NARAYANA INSTITUTE OF TECHNOLOGY®

Approved by AICTE, New Delhi & Affiliated to APJ Abdul Kalam Technological University
Theppupara, Adoor, Kerala-691554, Ph: 04734-244600, 244700, Fax: 04734- 243400
An ISO 9001:2008 Certified Institution

Ref:SNIT/KT/A/MAE/2020 **03.12.2020**

SERVICE CERTIFICATE

Certified that **Mr.Kevin Thomas, Muriyaickal, Kurisummoodu P O, Changanacherry, Kottayam** is an employee of this Organization and the particulars of his service period/character are as under:

1	Title	*Assistant Professor & HoD*		
2	Department / Core area	Department of Mechanical Automobile Engineering		
3	Nature of Appointment	Permanent		
4	Period of service	***Entry***	***Designation***	***Exit***
		01 August 2012	Assistant Professor	NA
		01 July 2016	HoD& Assistant Professor	NA
5	Total Service	08 Y 5M 2 D		
6	Character & Conduct	Excellent		

This certificate is issued on request of the incumbent for the purpose of Ph.D registration

Sree Narayana Institute of Technology ★ Adoor ★ Date 03.12.2020

PRINCIPAL

आयकर, विभाग

INCOME TAX DEPARTMENT

भारत सरकार

GOVT. OF INDIA

KEVIN THOMAS

MURIYAYIKAL SEBASTIAN THOMAS

20/02/1985

Permanent Account Number

ARRPT8447Q

Signature

Self attested copy for PhD admission

ഭാരത സർക്കാർ

GOVERNMENT OF INDIA

കെവിൻ തോമസ്

Kevin Thomas

ജനന വർഷം/Year of Birth: 1985

പുരുഷൻ / Male

9512 4796 7989

ആധാർ - സാധാരണക്കാരന്റെ അവകാശം

self attested copy for PhD Admission

ANNEXURE-I

CERTIFICATE FROM THE ORGANISATION WHERE THE CANDIDATE IS EMPLOYED

Certified that **Mr. Kevin Thomas** is employed as **HoD & Assistant Professor** in the **Mechanical Automobile Engineering** department of **Sree Narayana Institute of Technology, Theppupara P.O, Adoor, Pathanamthitta, Kerala-691554.**

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

FOR FULL TIME :

The candidate will be sanctioned leave for the duration of the research programme and will be relieved from duty from_to_____to undertake the full time research work in the University.

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 : 01.12.2020

Signature of the Head of organization with office seal

Sree Narayana Institute of Technology
Date 01.12.2020
Adoor