

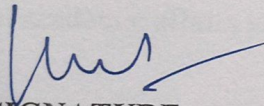
BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY

BHARATH UNIVERSITY

CHENNAI - 600 073

BONAFIDE CERTIFICATE

Certified that this project report "INVESTIGATION ON THE THERMAL PROPERTIES OF THE MULTILAYERED CERAMIC COATINGS DEPOSITED USING ATMOSPHERIC PLASMA SPRAYING FOR AUTOMOTIVE APPLICATION" is the bonafide work of "KOTA.ESWARA NAGA KUMAR (P16AM002)" who carried out the project work under my supervision.



SIGNATURE

Dr.P.Naveenchandran B.E., M.E., Ph.D.,

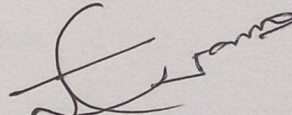
HEAD OF THE DEPARTMENT

Professor

Department of Automobile Engineering

BHARATH UNIVERSITY

Chennai - 600 073



SIGNATURE

Mr.C.Jagadeesh Vikram B.E., M.Tech., MBA..

SUPERVISOR

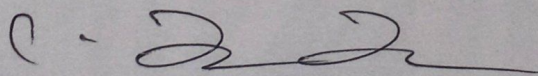
Assistant Professor

Department of Automobile Engineering

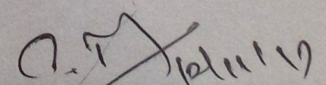
BHARATH UNIVERSITY

Chennai - 600 073

Submitted for the project Viva-Voce examination held on 12-04-2018 (FN)

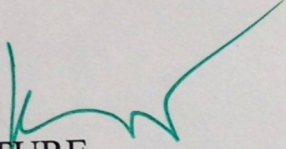


INTERNAL EXAMINER



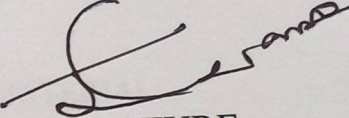
EXTERNAL EXAMINER

Certified that this project report "**EXTERIOR AERODYNAMIC BEHAVIOR OF A SCALE MODEL VEHICLE BY USING NYLON FIBER MATERIAL**" is the bonafide work of "**DEVA KUMAR(U14AM012), KARTHICK D (U14AM021), NISHANTH R (U14AM029), KISHORE KUMAR K S (U14AM053).**" Who carried out the project work under my supervision.



SIGNATURE
Mr. NAVEEN CHANDRAN
HEAD OF THE DEPARTMENT

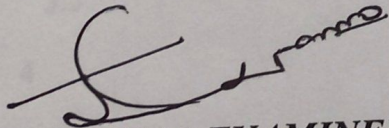
*Department of Automobile
Engineering
Bharath Institute of Higher Education
And Research
Bharath University
173, Agharam Road,
Selaiyur, Chennai-600073*



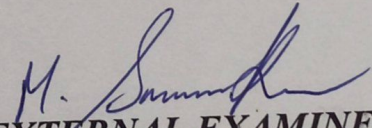
SIGNATURE
Mr. C. JAGADEESH VIKRAM
SUPERVISOR

*Assistant Professor
Department of Automobile
Engineering
Bharath Institute of Higher
Education and Research
Bharath University
173, Agharam Road,
Selaiyur, Chennai – 600073*

Submitted for the viva voce examination held on... 11-04-2018



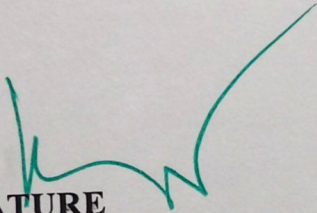
INTERNAL EXAMINER



EXTERNAL EXAMINER

BONAFIDE CERTIFICATE

It is to be certified that design engineering canvases entitled "AUTOMATIC ACCIDENT DETECTION AND RESCUE SYSTEM" is the bonafide work of "SIBBALA NIKHIL RAM (U14AM042) RAGHAV NANDYALA (U14AM503) GEORGE MICHEAL (U14AM504) SUNDAR KARTHIK (U14AM701)" who carried out the project work under my supervision for the award of the degree Bachelor Of Technology in automobile engineering at Bharath Institute Of Higher Education And Research , Chennai , during the academic year 2017-18.


SIGNATURE

Dr. NAVEEN CHANDRAN , ME, Ph.D
HEAD OF THE DEPARTMENT

Prof

Department of Automobile Engineering
Bharath University
173, Agharam Road,
Selaiyur, Chennai – 600073.


SIGNATURE

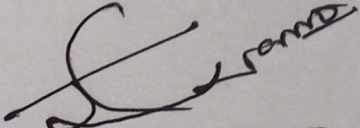
E. RAJA

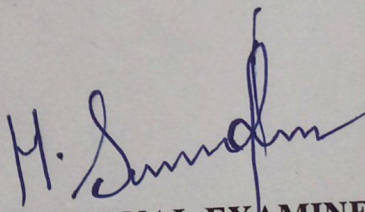
PROJECT SUPERVISOR

Assistant Prof

Department of Automobile Engineering
Bharath University
173, Agharam Road,
Selaiyur, Chennai – 600073.

Submitted for the project Viva-Voce examination held on11-04-2018.....


INTERNAL EXAMINER


EXTERNAL EXAMINER

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

CHENNAI - 600 073

BONAFIDE CERTIFICATE

Certified that this project report on “**PROPERTIES OF THE BORONIZED MEDIUM CARBON STEEL FOR AUTOMOTIVE APPLICATIONS**” is the bonafide work of “**AROMAL R V (P17AM001)**” who carried out the project work under my supervision.



SIGNATURE

Dr.P. Naveenchandran B.E., M.E., Ph.D.,

HEAD OF THE DEPARTMENT

Department of Automobile Engineering
Bharath Institute of Science and Technology
BIHER, Chennai - 600 073



SIGNATURE

**Mr.C. Thamotharan B.Sc., B.Tech,
M.E.,(Ph.D.)
SUPERVISOR**

Department of Automobile Engineering
Bharath Institute of Science and
Technology BIHER, Chennai - 600 073

Submitted for the project Viva-Voce examination held on ...**17.05.2019**.....



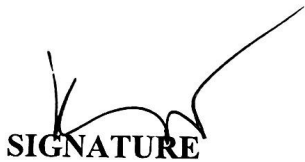
INTERNAL EXAMINER



EXTERNAL EXAMINER

BONAFIDE CERTIFICATE

Certified that this project report “INTELLIGENT BRAKING SYSTEM” is the bonafide work of **M. MOHAMED ASHIF (U15AM015), K. VISHANTH (U15AM030), B. SURYA NARAYANAN(U15AM031)** who carried out the project work under my supervision.



SIGNATURE

Dr. P. NAVEENCHANDRAN

HEAD OF THE DEPARTMENT

Professor

Department of Automobile Engineering

BIHER

Selayur, Chennai – 73



SIGNATURE

Mr. C. THAMOTHARAN

PROJECT SUPERVISOR

Associate Professor

Department of Automobile Engineering

BIHER

Selayur, Chennai - 73

Submitted for the project viva-voce examination held on 27/04/2019



INTERNAL EXAMINER



EXTERNAL EXAMINER

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
CHENNAI – 600073**

BONAFIDE CERTIFICATE

Certified that this project report “**DESIGN AND FABRICATION OF ELECTRIC SCOOTER**” is the bonafide work of **AJITH S (U15AM704), ABISHEK RAJAGOPAL (U15AM002), MARIA SUBTICHAM VINITH N (U15AM013), SATHISHKUMAR A (U15AM026), SATHIYA NARAYANAN S. (U15AM032)** who carried out the project work under my supervision.


SIGNATURE

Dr. P. NAVEENCHANDRAN

HEAD OF THE DEPARTMENT

Professor

Department of Automobile Engineering

BIHER

Selayur, Chennai – 73


SIGNATURE

Mr. R. ANBAZHAGAN

SUPERVISOR

Associate Professor

Department of Automobile Engineering

BIHER

Selayur, Chennai - 73

Submitted for the project viva-voce examination held on 27/04/2019


INTERNAL EXAMINER


EXTERNAL EXAMINER

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

CHENNAI - 600 073

BONAFIDE CERTIFICATE

Certified that this project report on "AUTOMATIC BRAKE FAILURE INDICATOR" is the bonafide work of "SUBHADRA GHOSH (P18AM001)" who carried out the project work under my supervision.


SIGNATURE

**Dr.P. Naveenchandran B.E., M.E., Ph.D.,
HEAD OF THE DEPARTMENT**

Department of Automobile Engineering
Bharath Institute of Science and Technology
BIHER, Chennai - 600 073


SIGNATURE

**Mr.D.Mohankumar D.A.E, B.Tech, M.E.,
SUPERVISOR**

Department of Automobile Engineering
Bharath Institute of Science and
Technology BIHER, Chennai - 600 073

Submitted for the project Viva-Voce examination held on
25.09.2020


INTERNAL EXAMINER


EXTERNAL EXAMINER

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

CHENNAI - 600 073

BONAFIDE CERTIFICATE

Certified that this project report on **“PROCESS IMPROVEMENT ON ENGINE TEST BED BY USING DRIVE ADAPTOR PLATE FIXTURE”** is the bonafide work of **“M.MADHUVATHAN (P18AM002)”** who carried out the project work under my supervision.



SIGNATURE

**Dr.P. Naveenchandran B.E., M.E., Ph.D.,
HEAD OF THE DEPARTMENT**

Department of Automobile Engineering
Bharath Institute of Science and Technology
BIHER, Chennai - 600 073



SIGNATURE

**Mr.D.Mohankumar D.A.E, B.Tech, M.E.,
SUPERVISOR**

Department of Automobile Engineering
Bharath Institute of Science and
Technology BIHER, Chennai - 600 073

Submitted for the project Viva-Voce examination held on ..25.09.2020.....



INTERNAL EXAMINER



EXTERNAL EXAMINER

**BHARATH INSTITUTE OF HIGHER EDUCATION AND
RESEARCH CHENNAI - 600 073**

BONAFIDE CERTIFICATE

Certified that this project report **“DRAG REDUCTION IN LIGHT
COMMERCIAL VEHICLE BY PROFILE OPTIMIZATION AND BY
USING ADD ON DEVICES”** is the bonafide work of **PALAPANDALA PRUDHVI
(U16AM008), ANJERI BALU (U16AM021), PARIMI SAI SURYA VAMSI
(U16AM015), LAGHUVARAPU SAI SATISH(U16AM703), GUNTAMUKKALA THILAK
(U16AM704)”** who carried out the project work under my supervision.



SIGNATURE

Dr.P.Naveenchandran,

HEAD OF THE DEPARTMENT

Department of Automobile Engineering

BIHER,

Chennai – 600073.

SIGNATURE

Mr.D.Mohan Kumar ,

GUIDE- *Associate Professor*

Department of Automobile Engineering

BIHER,

Chennai – 600073.

Submitted for the project Viva-Voce examination held on08.08.2020.....



INTERNAL EXAMINER



EXTERNAL EXAMINER

II

**BHARATH INSTITUTE OF HIGHER EDUCATION AND
RESEARCH
CHENNAI - 600 073**

BONAFIDE CERTIFICATE

Certified that this project report "PERFORMANCE AND EMISSION CHARACTERISTICS OF PONGAMIA BIODIESEL WITH ZINC OXIDE NANO ADDITIVES" is the bonafide work of "JAI KUMAR VERMA (U16AM010), A.JEEVAN REDDY (U16AM019), M.SHIVA SAGAR (U16AM020), BISANI.YASWANTH SAI (U16AM701), KUTO CHUZHO (U16AM705)" who carried out the project work under my supervision.


SIGNATURE

Dr.P.Naveenchandran,

HEAD OF THE DEPARTMENT

Department of Automobile Engineering

BIHER,

Chennai - 600073.


SIGNATURE

Mr. R.ANBAZHAGAN,

GUIDE- Associate Professor

Department of Automobile Engineering

BIHER,

Chennai - 600073.

Submitted for the project Viva-Voce examination held on08.08.2020.....


INTERNAL EXAMINER


EXTERNAL EXAMINER

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
CHENNAI – 600073

BONAFIDE CERTIFICATE

Certified that this project report “**PRODUCTION AND ENGINE PERFORMANCE STUDY OF BIODIESEL FROM BINARY FEEDSTOCK**” is the bonafide work of “**S.SANJAY RAGAVENDRA (P19AM001)**” who carried out the project work under my supervision.



Dr. K. VENKATESAN

HEAD OF THE DEPARTMENT

Professor

Department of Automobile Engineering

BIHER

Selaiyur, Chennai – 73



Mr. E. Raja

SUPERVISOR

Assistant Professor

Department of Automobile Engineering

BIHER

Selaiyur, Chennai - 73

Submitted for the project viva-voce examination held on 04/08/2021



INTERNAL EXAMINER



EXTERNAL EXAMINER

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
CHENNAI – 600073**

BONAFIDE CERTIFICATE

Certified that this project report “ANALYSIS OF REGENERATIVE AND ANTI-LOCK BRAKING SYSTEM IN ELECTRIC VEHICLES” is the bonafide work of ALIHUSSAIN (U17AM003), KUTHE SOURABH SURESH (U17AM015), MARTHA CHAITANYA (U17AM022), and JABANESH SG (U17AM701) who carried out the project work under my supervision.



Dr. M. SENTHIL KUMAR

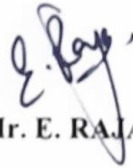
HEAD OF THE DEPARTMENT

Professor

Department of Automobile Engineering

BIHER

Selaiyur, Chennai – 73



Mr. E. RAJA

SUPERVISOR

Assistant Professor

Department of Automobile Engineering

BIHER

Selaiyur, Chennai - 73

Submitted for the project viva-voce examination held on 19/05/2021.....



INTERNAL EXAMINER



EXTERNAL EXAMINER



Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BONAFIDE CERIFICATE

Certified that this project report, 'PIKES PEAK INTERNATIONAL HILL CLIMB OPEN WHEEL TIME ATTACK RACE CAR' is a Bonafide work of NEIKHOZO KHAMO (U17AM703) and TOVISHE ZHIMO (U17AM038) who carried out the project work under my supervision.

m. senthil kumar
2/4/21

Dr.M.SENTHIL KUMAR.

HEAD OF DEPARTMENT

Professor

Dept. of Automobile Engineering
BIHER

173, Agharam Road

Selaiyur, Chennai-600 073.

Raguraman
7/4/2021

Dr. RAGURAMAN

SUPERVISOR

Associate Professor

Dept. of Automobile Engineering
BIHER

173, Agharam Road

Selaiyur, Chennai-600 073.

Submitted for the project viva held on19.05.2021.....

R. An

INTERNAL EXAMINER

R. An

EXTERNAL EXAMINER

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
CHENNAI – 600073**

BONAFIDE CERTIFICATE

Certified that this project report “**COMPUTATIONAL FLUID DYNAMICS ANALYSIS OF AERODYNAMICS CHARACTERISTICS OF UAV IN AIRCRAFT ENGINES**” is the bonafide work of **DULAM YESWANTH REDDY (U18AM005), N. NARAYANAM KRISHNA SAI (U18AM008), VELALA D N V SYAM PRASAD (U18AM014) and CHEPURI VINAY TEJA (U18AM703)** who carried out the project work under my supervision.


Dr. D. RAGURAMAN

HEAD OF THE DEPARTMENT

Associate Professor

Department of Automobile Engineering

BIHER

Selayur, Chennai – 73


Mr. R. ANBAZHAGAN

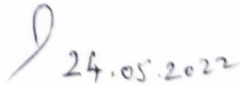
SUPERVISOR

Assistant Professor

Department of Automobile Engineering

BIHER

Selayur, Chennai - 73

Submitted for the project viva-voce examination held on



INTERNAL EXAMINER


EXTERNAL EXAMINER

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
CHENNAI – 600073

BONAFIDE CERTIFICATE

Certified that this project report “**CFD ANALYSIS OF INTAKE VALVE FOR PORT PETROL INJECTION SI ENGINE**” is the bonafide work of **R.DINESH BALAJI (U18AM003), J. CHANDRU (U18AM006), and AVINASH R PATEL (U18AM010)** who carried out the project work under my supervision.



Dr. D. RAGURAMAN

HEAD OF THE DEPARTMENT

Associate Professor

Department of Automobile Engineering

BIHER

Selaiyur, Chennai – 73



Mr. E. RAJA

SUPERVISOR

Assistant Professor

Department of Automobile Engineering

BIHER

Selaiyur, Chennai - 73

Submitted for the project viva-voce examination held on 24/05/2022.....



INTERNAL EXAMINER



EXTERNAL EXAMINER