



# Bharath

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



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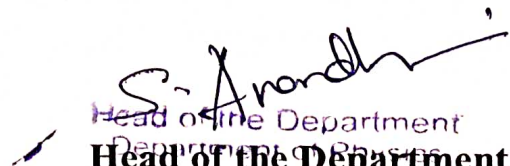
New Agaram Main Road, Tiruvanchery, Selaiyur, Chennai-600126

FACULTY OF ARTS & SCIENCE  
DEPARTMENT OF PHYSICS

### BONAFIDE CERTIFICATE


This is to certify that the dissertation entitled “**SMART BLIND STICK USING ARDUINO**” submitted by **Ms. A. SARUMATHY (U20PI007)** in partial fulfillment of the requirements, for the award of degree of **BACHELOR OF SCIENCE** in **PHYSICS** of Faculty of Arts & Science, Bharath Institute of Higher Education and Research is a bonafide record of the work carried out by him under my guidance and supervision during February 2023 - March 2023.

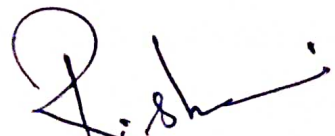
  
Project guide

  
Head of the Department  
Department of Physics  
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Chennai-600 126, INDIA.

Submitted for Viva -Voce examination held on:

2/6/23

  
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EXTERNAL EXAMINER



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**BONAFIDE CERTIFICATE**

This is to certify that the dissertation entitled “**Power Generating MAT using Piezoelectric Material**” submitted by **Mr. AJAYDEEPAK S** in partial fulfilment of the requirements, for the award of degree of **BACHELOR OF SCIENCE** in **PHYSICS** of Faculty of Arts & Science, Bharath Institute of Higher Education and Research is a bonafide record of the work carried out by him under my guidance and supervision during February 2023 - March 2023.

**Project guide & Head of the Department**

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This is to certify that the dissertation entitled “Power Generating Shoe using Piezoelectric Material” submitted by Ms. DIVYA PRETHEYANKA A in partial fulfilment of the requirements, for the award of degree of BACHELOR OF SCIENCE in PHYSICS of Faculty of Arts & Science, Bharath Institute of Higher Education and Research is a bonafide record of the work carried out by him under my guidance and supervision during February 2023 - March 2023.

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This is to certify that the dissertation entitled “**PIEZO COLLISION DETECTOR**” submitted by **Mr. MOHAMMED IRFAAN B** in partial fulfillment of the requirements, for the award of degree of **BACHELOR OF SCIENCE** in **PHYSICS** of Faculty of Arts & Science, Bharath Institute of Higher Education and Research is a bonafide record of the work carried out by him under my guidance and supervision during February 2023 - March 2023.

  
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This is to certify that the dissertation entitled 'SOLAR CAR' submitted by **Mr. MUKESH KANNAN.M** in partial fulfilment of the requirements, for the award of degree of **BACHELOR OF SCIENCE** in **PHYSICS** of Faculty of Arts & Science, Bharath Institute of Higher Education and Research is a bonafide record of the work carried out by him under my guidance and supervision during February 2023 - March 2023.

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This is to certify that the dissertation entitled “DYE SENSITIZED SOLAR CELL USING SYZGIUM CUMINI FRUIT AS NATURAL DYE” submitted by MS.RAMYA.S in partial fulfilment of the requirements, for the award of degree of BACHELOR OF SCIENCE in PHYSICS of Faculty of Arts & Science, Bharath Institute of Higher Education and Research is a Bonafide record of the work carried out by him under my guidance and supervision during February 2023 - March 2023.

*S. Anandhi*

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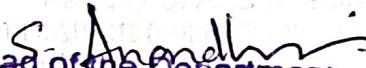
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#### DEPARTMENT OF PHYSICS

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This is to certify that the dissertation entitled "DIY SELF BALANCING GYROSCOPIC CAMERASTABILIZER" by submitted Mr. S.SILAMBARASAN (U20P1008) in partial fulfillment of the requirements, for the award of degree of BACHELOR OF SCIENCE in PHYSICS of Faculty of Arts & Science, Bharath Institute of Higher Education and Research is a bonafide record of the work carried out by him under my guidance and supervision during February 2023 March 2023.

  
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**DEPARTMENT OF PHYSICS**  
**BONAFIDECERTIFICATE**


This is to certify that the dissertation entitled "**TOUCHLESS DOORBELL**" submitted by **Ms. S. SUBHASHINI (U20PI009)** in partial fulfillment of the requirements, for the award of degree of **BACHELOR OF SCIENCE** in **PHYSICS** of Faculty of Arts & Science, Bharath Institute of Higher Education and Research is a bonafide record of the work carried out by her under my guidance and supervision during February 2023 - March 2023.


  
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Chennai-600 126, INDIA.

**Submitted for Viva -Voce examination held on: 01-06-2023**

  
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