

# ***LIBRARY MANAGEMENT SYSTEM***

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A dissertation submitted in partial fulfilment of the requirement for the  
award of the degree of

## **BACHELOR OF SCIENCE IN PHYSICS**

**By**

- 1. Abarna. J 2020P01**
- 2. Abinaya. C 2020P02**
- 3. Abisha. S 2020P03**
- 4. Aileen Matharasi. A 2020P04**
- 5. Ancitta. D 2020P05**

Under the Guidance of

**Ms. R. Alphonsa Fernando,**  
Associate Professor,  
Research Centre of Physics,  
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**FATIMA COLLEGE (Autonomous)**

Re-Accredited with A++ by NAAC (Cycle – IV)

Mary Land, Madurai - 625 018.

**APRIL, 2023**



## **CERTIFICATE**

This is to certify that the project work '**LIBRARY MANAGEMENT SYSTEM**' done by Abarna. J (2020P01), Abinaya. C (2020P0), Abisha. S (2020P03), Aileen Matharasi. A (2020P04), Ancitta. D (2020P05) under the guidance of Ms. R. Alphonsa Fernando, Associate Professor, Research Centre of Physics, Fatima College( Autonomous), Madurai.

*R. Venu Vijay*  
**EXTERNAL EXAMINER** 5/4/23

*R. Alphonsa Fernando*  
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*A. Shalee Devi*  
**HEAD OF THE DEPARTMENT**



## DECLARATION

We hereby declare that the dissertation titled " **LIBRARY MANAGEMENT SYSTEM**", submitted to Fatima College (Autonomous), Madurai -625018 to the award of degree of **Bachelor of Science in Physics** is a record of original project work carried out under the supervision of **Ms. R. Alphonsa Fernando, Associate Professor, Research Centre of Physics, Fatima College (Autonomous), Madurai** and has not submitted for any degree or diploma in Madurai Kamaraj University or any Institution.

*Abarna. J*

**Abarna. J 2020P01**

*Abinaya. C*

**Abinaya. C 2020P02**

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*Aileen Matharasi A.*

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*D. Ancitta.*

**Ancitta. D 2020P05**

**Place : Madurai**

**Date : 05/04/2023**



# **NOISE MONITORING SYSTEM - IN LIBRARY**

A dissertation submitted in partial fulfillment of the requirement for  
the award of the degree of

## **BACHELOR OF SCIENCE IN PHYSICS**

BY

- |                     |           |
|---------------------|-----------|
| 1. Anusuya Mary R   | - 2020P06 |
| 2. Bershina P       | - 2020P07 |
| 3. Bhuvaneshwari V  | - 2020P08 |
| 4. Deva Dharshini T | - 2020P10 |
| 5. Divain Penni J   | - 2020P11 |

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## Certificate

This is to certify that the project work NOISE MONITORING SYSTEM - IN LIBRARY done by\_Anusuya Mary R (2020P06), Bershina P (2020P08), Bhuvaneshwari V (2020P08), Deva Dharshini T (2020P10) and Divain Penni J (2020P11) under the guidance of Dr. M.V. Leena Chandra, Assistant Professor, Research center of Physics has been submitted as the external viva-voce on 03.04.2023 at Fatima College (Autonomous), Madurai.

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## DECLARATION



## ACKNOWLEDGEMENT

I am grateful to mention the people whose constant inspiration, guidance and blessings made my project a successful one.

I thank God for his substantial blessings and mercy at all stages of the completion of my project. Taking this opportunity, I thank my parents and friends for their sacrifices in supporting me.

I feel honored to place a warm salutation to the management of **FATIMA COLLEGE, MADURAI** which gave me the opportunity to have a strong base in physics and practical and theoretical knowledge.

I express my sincere thanks to **REV. DR. SR. CELINE SAHAYA MARY., Principal, Fatima College, Madurai** for giving me a comfortable environment.

I express my sincere thanks to **REV. DR. SR. FATIMA MARY vice principal** for her extensive support rendered to carry out this project successfully.

I owe my special thanks to **Dr. A. Sheela Vimala Rani, M.Sc., M.Phil., Ph.D., HOD, Research centre of Physics**, for her valuable guidance and encouragement.

I owe my special thanks to **Dr. M. V. Leena Chandra, M.Sc., M.Phil., NET., Ph.D. Research center of physics** for her valuable guidance and encouragement.

I like to thank all the staff members in the research centre of physics of Fatima College, for their valuable suggestions at different stages of this project work.



# **AUTOMATIC SMART IRRIGATION SYSTEM.**

A dissertation submitted in partial fulfillment of the requirement for  
the award of the degree of

**BACHELOR OF SCIENCE IN PHYSICS**

BY

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|--------------------|-----------|
| 1. Doncy Punitha J | - 2020P12 |
| 2. Jasmin Fatima G | - 2020P15 |
| 3. Jeffrina J      | - 2020P16 |
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Mary Land, MADURAI-625018

April 2023



## CERTIFICATE

This is to certify that the project work 'AUTOMATIC SMART IRRIGATION SYSTEM' done by\_Doncy Punitha J (2020P12), Jasmin Fatima G (2020P15), Jeffrina J (2020P16), Jeyashree B (2020P17) and Kavitha P (2020P18) under the guidance of Dr.Sr. G. Jenita Rani, Assistant Professor, Research center of Physics has been submitted as the external viva-voce on 03.04.2023 at Fatima College (Autonomous), Madurai.

*R. Shanmugam*  
External Examiner *5/4/23*

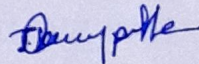
*J. Rani*  
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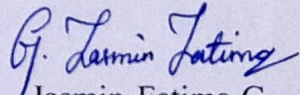
## DECLARATION

We hereby declare that the dissertation titled "AUTOMATIC SMART IRRIGATION SYSTEM", submitted to Fatima College (Autonomous), Madurai -625018 to the award of degree of Bachelor of Science in Physics is a record of original project work carried out under the supervision of Dr.Sr.G.Jenita Rani, Assistant Professor, Research Centre of Physics, Fatima College (Autonomous), Madurai and has not submitted for any degree or diploma in Madurai Kamaraj University or any Institution.



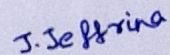
Doncy Punitha J

(2020P12)



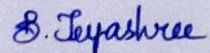
Jasmin Fatima G

(2020P15)



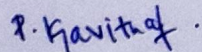
Jeffrina J

(2020P16)



Jeyashree B

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Kavitha P

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Place: Madurai

Date: 03.04.2023



## **WATER MANAGEMENT SYSTEM**

A dissertation submitted in partial fulfilment of the requirement for the award of the degree of  
**BACHELOR OF SCIENCE IN PHYSICS**

by

2020P19	KEERTHANA.C
2020P20	KIRUTHIKA.R
2020P22	LAVANYA.P
2020P23	NANDHINI DEVI.V
2020P24	NANDHINI.K

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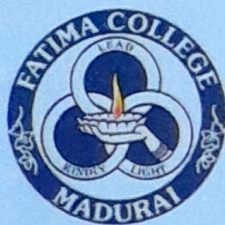
**Dr. R. JOTHI MANI,**

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Assistant Professor,

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**FATIMA COLLEGE (AUTONOMOUS), MADURAI**

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(74<sup>th</sup> Rank in India Ranking 2020(NIRF) by MHRD)

Mary Land, MADURAI-625018

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A dissertation submitted in partial fulfilment of the requirement for the award of the degree of

**BACHELOR OF SCIENCE IN PHYSICS**

by

**2020P19 KEERTHANA.C**

**2020P20 KIRUTHIKA.R**

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**FATIMA COLLEGE (AUTONOMOUS), MADURAI**

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(74<sup>th</sup> Rank in India Ranking 2020(NIRF) by MHRD)

Mary Land, MADURAI-625018

**APRIL 2023**



## CERTIFICATE

This is to certify that the project work 'WATER MANAGEMENT SYSTEM' done by Keerthana.C – 2020P19, Kiruthika.R – 2020P20, Lavanya.P – 2020P22, Nandhini Devi.V – 2020P23, Nandhini.K – 2020P24 under the guidance of Dr. R. JOTHI MANI, M.Sc., M.Ed., M.Phil., Ph.D., SET,PGDCA, Assistant Professor, Research Centre of physics has been submitted for external viva-voce on 03/04/2023 at Fatima College (Autonomous), Madurai.

R. Jothi Mani  
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R. Jothi Mani  
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## DECLARATION

We hereby declare that the dissertation titled '**WATER MANAGEMENT SYSTEM**', submitted to Fatima College (Autonomous), Madurai -625018 to the award of degree of **Bachelor of Science in Physics** is a record of original project work carried out under the supervision of **Dr. R. JOTHI MANI, M.Sc., M.Ed., M.Phil., Ph.D., SET.,PGDCA., Assistant Professor, Research Centre of physics Fatima College (Autonomous), Madurai** and has not submitted for any degree or diploma in Madurai Kamaraj University or any Institution.

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NANDHINI DEVI.V - 2020P23

Nandhini.K

NANDHINI.K - 2020P24



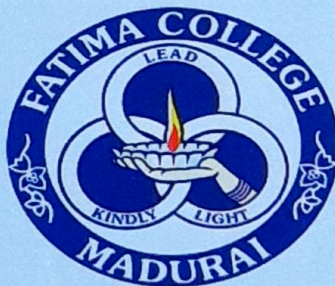
# **WATER QUALITY MONITORING SYSTEM**

A dissertation submitted in partial fulfillment of the requirement for the  
award of the degree of  
**BACHELOR OF SCIENCE IN PHYSICS**

By:

G . NITHYA SHREE	2020P25
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R. ROSHAL	2020P27
T. ROSHINI	2020P28
S. SAFREEN ASHIMA	2020P29

Under the guidance of  
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APRIL, 2023



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## CERTIFICATE

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EXTERNAL EXAMINER

P. P. P.  
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A. S. S. S. S.  
HEAD OF THE DEPARTMENT



## DECLARATION

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G. NITHYA SHREE	2020P25
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DATE : 05.04.2023



# **VIBRATION ANALYSIS IN INDUSTRIES**

A dissertation submitted in partial fulfillment of the  
requirement for the award of the degree of  
**BACHELOR OF SCIENCE IN PHYSICS**

by

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3. Sweetlin Sherly .C (2020P32)
4. Sylvia Joan .J (2020P33)
5. Thiyathra Risen .R (2020P34)

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(Affiliated to MADURAI KAMARAJ UNIVERSITY)

(RE-ACCREDITED WITH 'A++' GRADE BY NAAC)

(74<sup>th</sup> Rank in India Ranking 2020 (NIRF) by MHRD)

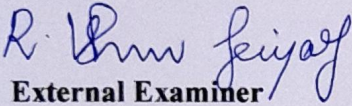
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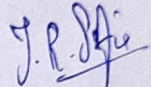
**APRIL 23**

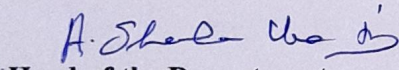


## CERTIFICATE

This is to certify that the project work 'VIBRATION ANALYSIS IN INDUSTRIES' done by Salima Sulthana .M (2020P30), Shalinipriya .J (2020P31), Sweetlin Sherly .C (2020P32), Sylvia Joan .J (2020P33), Thiyathra Risen .R(2020P34) under the guidance of Ms. J. R. Sofia, M.Sc., NET., (Ph.D.,)Assistant Professor, Research Centre of Physics has been submitted for external viva-voce on 05.04.2023 at Fatima College (Autonomous), Madurai.

  
External Examiner

  
Guide

  
Head of the Department



## DECLARATION

We hereby declare that the dissertation titled "VIBRATION ANALYSIS IN INDUSTRIES", submitted to Fatima College (Autonomous), Madurai -625018 to the award of degree of Bachelor of Science in Physics is a record of original project work carried out under the supervision of Ms. J. R. Sofia, M.Sc., NET., (Ph.D.,) Assistant Professor, Research Centre of Physics, Fatima College (Autonomous), Madurai and has not submitted for any degree or diploma in Madurai Kamaraj University or any Institution.

M. Salima Sulthana  
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J. Shalinipriya  
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Sylvia Joan .J

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R. Thiyathra Risen  
Thiyathra Risen .R

(Reg No : 2020P34)

Place : Madurai

Date : 03.04.2023



# **HEART RATE AND RESPIRATORY MONTIORING SYSTEM**

A dissertation submitted in partial fulfilment of the requirement for the award of the degree of **BACHELOR OF SCIENCE IN PHYSICS**

by

2020P35 J.VISHNU VARDHINI

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2020P38 R.MATHUMITHA

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2020P41 S.SANTHIYA

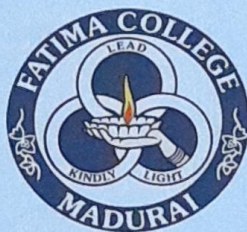
Under the guidance of

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**FATIMA COLLEGE (AUTONOMOUS),**

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MARY LAND, MADURAI - 625018

APRIL 2023



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MARY LAND, MADURAI - 625018

APRIL 2023



## CERTIFICATE

This is to certify that the project work 'HEART RATE AND RESPIRATORY MONITORING SYSTEM' done under the guidance of Dr. J. SELVI, M.Sc., M.Phil., Ph.D., Assistant Professor, by 2020P35 J.Vishnu Vardhini, 2020P37 S.N.Harish Ifrin, 2020P38 R.Mathumitha, 2020P39 R.Nancy Beaulah , 2020P41 S.Santhiya Research Centre of physics has been submitted for external viva-voce on 05/04/2023 at Fatima College (Autonomous), Madurai.

R. Vignesh  
External Examiner 5/4/23.

J. Selvi  
Guide

A. Shoban  
Head of the Department



## DECLARATION

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*J. Vishnu Vardhini*

2020P35- J.VISHNU VARDHINI

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