

**List of students undertaking student projects during the Academic year 2020-21**

<b>S.No</b>	<b>Email Address</b>	<b>Name of the Student</b>	<b>Register Number</b>	<b>Title of your Project</b>	<b>Name of the Guide</b>	<b>Filed of Research</b>
1	anuharisel@gmail.com	M.Maria Anusha	BP190301	Synthesis of Pure and Neodymium doped nanoparticles	Mr. D.Rajkumar	Nanomaterials
2	florachrist98@gmail.com	C.Flora	BP190302	Green synthesis of Zinc and Nickel oxide nanoparticles using Neem deoiled cake extract	R.Ramesh	Nanomaterials
3	jeevitha461999@gmail.com	Jeevitha P	BP190303	Investigation on the effect of Calcium dopant on the properties of Lanthanum Manganite perovskite nanoparticles	Jayakumar G	Nanomaterials
4	shinyv98@gmail.com	Shiny Annes V	BP190305	Synthesis and Characterization of NiO/SiO <sub>2</sub> coreshell structured nanocomposites	Dr. M. Jose	Nanomaterials
5	Ajayrobin10@gmail.com	Ajay Robin	BP190306	Synthesis and characterization of ironoxide nanoparticles using NaOH	Mr C Thirupathy	Nanomaterials
6	gmerlinesujitha@gmail.com	Merline Sujitha.G	BP190307	Synthesis and characterization of zinc ferrite nanoparticle using prunus dulcis ( almond gum) for antibacterial application	Dr. S. John Sundaram.	Nanomaterials
7	selvaranijulie@gmail.com	R.Julie Selvarani	BP190309	Impact Of Shock Waves On L-Glutamine Zinc Sulphate	Mr.N.MADHAVAN	Crystal growth
8	reganrenold1298@gmail.com	Regan Renold A	Bp190310	Impact of shock waves on hydroxyapatite	Dr. S. A. Martin Britto Dhas	Shock waves
9	fathimamubashira311@gmail.com	G. T. Fathima Mubashira	BP190311	Synthesis and characterization of copper and iron oxide nanoparticle using fresh gum extract of moringa oleifera	Prof. R. Ramesh	shock wave treatment
10	boscofranklin629@gmail.com	Bosco Franklin	BP190312	Xrd And Ftir Analysis Of Archaeological Artifacts Excavated From Jambupallam, Tamil Nadu, India	Mr. M.Aravinthraj	Ceramics
11	nishanth7938@gmail.com	D.Nishanth	BP190313	Synthesis of Copper doped Zinc oxide nanoparticles by co precipitation method	Mr C.Thirupathy	Nanomaterials
12	allwinfernandes@gmail.com	A. Allwin Fernandes	BP190314	The analysis of ancient pot sharded evacuated from Achamangalam Village in Tirupatur District, Tamil Nadu, India	Mr M.Aravinthraj	Nanomaterials
13	dominicsavioc1@gmail.com	Dominic Savio C	BP190315	Synthesis and characterisation of neodymium oxide nanoparticle by sol gel method	Mr. D. Rajkumar	Nanomaterials
14	krnaveenkrishna98@gmail.com	K R Naveenkumar	BP190316	Synthesis, Crystal Growth And Characterization Of Organic L-Valine Para-Nitrophenol Non Linear Optical Crystal	Mr. L. ANANDARAJ	Crystal growth
15	swathisankar807@gmail.com	Swathi.S	Bp190317	Effect of shock waves on structural and spectroscopic properties of zinc cobaltite nanoparticles	Dr. S. John Sundharam	Nanomaterials
16	ssuruthimalar@gmail.com	S Suruthi	Bp190318	Facile synthesis of mixed metal oxide nanoparticles for photocatalytic	Dr. S. John Sundaram	Nanomaterials

				applications/particals for		
17	ssuji3414@gmail.com	Sujitha.S	BP190319	Synthesis and characteristics of ZnO-CeO <sub>2</sub> and NiO-CeO <sub>2</sub> nanocomposites	G.Jayakumar	Nanomaterials
18	pavitharanidevi@gmail.com	Pavitharani.S	BP190320	Impact Of Shock Wave On Tris Thiourea Zinc Sulphate Crystal	N.Madhavan	Crystal growth
19	dhilipkumarkanagaraj002@gmail.com	K. Dhilipkumar	BP190321	Synthesis of pure neodymium oxide nanoparticles by solgel method	D. Rajkumar	Nanomaterials
20	vaishnaviutg@gmail.com	Vaishnavi A	Bp190322	Effect of Lithium sulphate monohydrate on the growth and characterization of sodium acid phthalate (NaAP) single crystals	L. Ananadaraj	Crystal growth
21	aagnesprincy21@gmail.com	Agnes Princy	BP190323	Synthesis growth and characterisation of benzophenone doped With sodium acid phthalate A novel semi organic nonlinear optical crystal	L. Ananda Raj	Crystal growth
22	ramyasuresh9787@gmail.com	S.Ramya	Bp190325	Assessment of crystallographic phase stability of cerium oxide nanoparticles	Dr.S.A.Martin Britto Dhas	Shock waves
23	manojmanoj18580@gmail.com	Manoj	BP190326	Mineralogical Identification of archaeological potteries excavated from Vellore district Tamilnadu India	Mr M.Aravinthraj	archaeological samples
24	divyadine27@gmail.com	N.Divya	BP190327	Effect of synthesis routes on the microstructures of zinc oxide powder	G. Jayakumar	Nanomaterials
25	parasaranm@gmail.com	Parasaran M	BP190329	Synthesis and Catheterization of Zinc and Nickel Oxide Nanoparticles using Cocos Nucifera (Coconut De-oiled cake)Extract	Mr R RAMESH	Nanomaterials
26	Ehthisham308@gmail.com	Ehthishamul Haque M	BP190308	Synthesis and Characterization of Co <sub>3</sub> O <sub>4</sub> @SiO <sub>2</sub> core shell nanoparticles for Photocatalytic applications	Dr. M. Jose	Nanomaterials
27	Joeruan1998@gmail.com	F. Ruban Arockia Raj	BP190304	Impact of shockwaves on L-Glutamine picrate crystal	N.Madhavan	Crystal growth
28	celinmaryanand333@gmail.com	Anandakumar A	BP190324	Synthesis of Zn doped CuO nanoparticles by co precipitation method	Mr C.Thirupathy	Nanomaterials
29	indumathi@gmail.com	Indumathi S	BP190328	Synthesis and characterization of CuO nanoparticles by sol gel method	Rev. Dr. G. Theophil Anand	Nanomaterials

## CERTIFICATE

This is to certify that the dissertation entitled “**SYNTHESIS OF PURE AND NICKEL DOPED Nd<sub>2</sub>O<sub>3</sub> NANOPARTICLES**” submitted to the Sacred Heart College (Autonomous), Tirupattur in the fulfillment of the requirements for the award of degree of Mater of Science in Physics is a record of original work done by **M.MARIA ANUSHA (BP190301)** during the period (2020-2021) of her study in the Department of Physics, Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance. The dissertation has not formed the basis for the award of any degree or similar title to any candidate of any College or University.



**Head of the Department**

Dr.M.Jose  
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Submitted to **Sacred Heart College (Autonomous)**, Tirupattur at the Viva-Voice examination held on.....

**Examiner 1**

**Examiner 2**

## CERTIFICATE

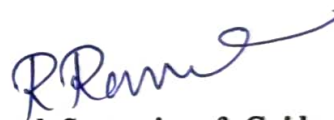
This is to certify that the dissertation, entitled "**GREEN SYNTHESIS OF ZINC AND NICKEL OXIDE NANOPARTICLES USING NEEM DEOILED CAKE EXTRACT**", submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **MISS.C.FLORA, (REG. NO: BP190302)** during the period of 2019-2021 of her study in the Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.



**Signature of the HOD**

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**Research Supervisor & Guide**

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Examiners:

Internal Examiner



External Examiner

## CERTIFICATE

This is to certify that the dissertation entitled "**INVESTIGATION ON THE EFFECT OF CALCIUM DOPANT ON THE PROPERTIES OF LANTHANUM MANGANITE PEROVSKITE NANOPARTICLES**" submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements of the award of the Degree of Master of Science in Physics is a record of original research work done by **JEEVITHA.P (BP190303)**, during the period 2019-2021 of her study in the Department of physics, Sacred Heart College, Tirupattur under my supervision and guidance. No part of this dissertation has been submitted for the award of any other Degree, Diploma, Fellowship or other similar title to any candidate in any University.



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Submitted to Sacred Heart College (Autonomous), Tirupattur in the Viva-voce examination held on .....20.04.2021....



Examiner: 1

Examiner: 2

## CERTIFICATE

This is to certify that the dissertation entitled "**Impact of shock waves on L-Glutamine picrate**", submitted to the Sacred Heart College (Autonomous), Tirupattur in the fulfilment of the requirements for the award of the degree of Master of Science in Physics is a record of original work done by **Mr. F.Ruban Arokia Raj(BP190304)** during the period **(2020-2021)** of his studying in the Department of Physics, Sacred Heart College (Autonomous), Tirupattur, under my Supervision and Guidance. The dissertation has not formed the basis for the award of any degree or similar title to any candidate of any College or University.



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**Examiner 1**

**Examiner 2**







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Assistant Professor,  
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**CERTIFICATE**

This is to certify that the dissertation, entitled “**SYNTHESIS AND CHARACTERIZATION OF NiO/SiO<sub>2</sub> CORE-SHELL STRUCTURED NANOCOMPOSITES**”, submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **MISS.V. SHINY ANNES, (REG. NO: BP190305)** during the period of 2019- 2021 of her study in the Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

  
19/04/2021

**Signature of the HOD**

(Dr. M. Jose)

  
19/04/2021

**Research Supervisor**

(Dr. M. Jose)

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Tirupattur-635 601. Vellore District.

## CERTIFICATE

This is to certify that the dissertation, entitled "SYNTHESIS AND CHARACTERIZATION OF IRON OXIDE NANOPARTICLES USING SODIUM HYDROXIDE AS BASIC MEDIUM ", submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by MR. AJAY ROBIN, (REG. NO: BP190306) during the period of 2020-2021 of his study in the Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.



Signature of the HOD

(Dr. M. Jose)



Research Supervisor Guide

(Mr. C. Thirupathy)

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## CERTIFICATE

This is to certify that the Dissertation entitled as “**Synthesis and Characterisation of Zinc Ferrite Nanoparticle using *Prunus dulcis* (Almon gum) for Antibacterial applications**”, submitted to the Sacred Heart College (Autonomous), Tirupattur in the fulfilment of the requirements for the award of the degree Master of Science in Physics is a record of original work done by **G. MERLINE SUJITHA (BP190307)** during the period (2020-2021) of her studying in the Department of Physics, Sacred Heart College (Autonomous), Tirupattur, under my Supervision and Guidance. The Dissertation has not formed the basis for the award of any degree or similar title to any candidate of any College or University.



**Head of the Department**

**(Dr.M.Jose)**

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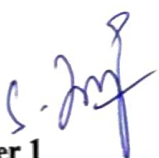
**Research Supervisor & Guide**

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Submitted to **Sacred Heart College (Autonomous), Tirupattur** at the Viva-Voce examination held on 20/04/2021

**Examiner 1**



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**Examiner 2**





Dr.M.Jose  
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---

**CERTIFICATE**

This is to certify that the dissertation, entitled “**Synthesis and Characterization of  $\text{Co}_3\text{O}_4/\text{SiO}_2$  nanocomposites**”, submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **M.EHTHISHAM UL HAQUE, (REG. NO: BP190308)** during the period of 2019-2021 of his study in the Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

  
**Signature of the HOD**

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**Research Supervisor & Guide**

(Dr.M.Jose)

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---

## CERTIFICATE

This is to certify that the dissertation entitled "impact of shock wave on L-Glutamine zinc sulphate", submitted to the Sacred Heart College (Autonomous), Tirupattur in the fulfillment of the requirements for the award of the degree of Master of Science in Physics is a record of original work done by R.Julie selvarani (BP190309) during the period (2020-2021) of his studying in the Department of Physics, Sacred Heart College (Autonomous), Tirupattur, under my Supervision and Guidance. The dissertation has not formed the basis for the award of any degree or similar title to any candidate of any College or University.

  
19/04/2021

**Head of the Department**

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Tirupattur - 635601

Submitted to Sacred Heart College (Autonomous), Tirupattur at the Viva-Voce examination held on 20/04/21



**Examiner 2**

**Examiner 1**

## CERTIFICATE

This is to certify that the dissertation entitled “**Studies on Impact of Shock Waves on Hydroxyapatite Nano Particles**” submitted to the Sacred Heart College(Autonomous), Tirupattur in the fulfillment of the requirements for the award of degree of Mater of Science in Physics is a record of original work done by **A. REGAN RENOLD (BP190310)** during the period **(2020-2021)** of his studying the Department of Physics, Sacred Heart College (Autonomous), Tirupattur, under my Supervision and Guidance. The dissertation has not formed the basis for the award of any degree or similar title to any candidate of any College or University.

  
Head of the Department,

**(Dr. M. Jose)**

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Sacred Heart College, Tirupattur.

  
Supervisor & Guide

**Dr. S.A. MARTIN BRITTO DHAS**

Assistant Professor

Department of Physics

Sacred Heart College, Tirupattur.

Submitted to Sacred Heart College (Autonomous), Tirupattur at the Viva-Voice examination held on.....

**Examiner 1**

**Examiner 2**



## CERTIFICATE

This is to certify that the dissertation, entitled “**SYNTHESIS AND CHARACTERIZATION OF COPPER AND IRON OXIDE NANOPARTICLES USING FRESH GUM EXTRACT OF MORINGA OLEIFERA**”, submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of science in Physics is a record of original research work done by **MISS.G.T.FATHIMA MUBASHIRA, (REG. NO: BP190311)** during the period of 2019-2021 of her study in the Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.



**Signature of the HOD**

Dr.M.Jose, M.Sc., M.Phil., Ph.D.

Head of PG

Department of physics,

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**Research Supervisor & Guide**

Mr.R.Ramesh. M.Sc., M.Phil. B.Ed.,

Assistant Professor

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Submitted for Viva-Voice Examination for

20/04/2021

Examiner

Internal Examiner



External Examiner



**CERTIFICATE**

This is to certify that the dissertation, entitled “XRD AND FTIR ANALYSIS OF ARCHAEOLOGICAL ARTIFACTS EXCAVATED FROM JAMBUPALLAM, TAMIL NADU, INDIA”, submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics in a record of original research work done by **J. BOSCO FRANKLIN, (Reg. No : BP190312)** during the period of 2020 – 2021 of his study in the PG and Research Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

  
19/04/2021

**Signature of the HOD**

(Dr. M. Jose)



**Signature of Research Guide**

(Mr. M. Aravinthraj)

**Dr. M. JOSE**, M.Sc., M.Phil., Ph.D.,  
Head (P.G)  
Department of Physics,  
Sacred Heart College,  
Tirupattur-635 601. Vellore District.

Examiner – 1

Examiner – 2

Place: Tirupattur,

Date:

## CERTIFICATE

This is to certify that the dissertation entitled “SYNTHEIS OF COPPER DOPED ZINC OXIDE NANOPARTICLES BY CO-PRECIPIATION METHOD .” submitted to the Sacred Heart College (Autonomous), Tirupattur in the fulfillment of the requirements for the award of degree of Master of Science in Physics is a record of original work done by **D.NISHANTH (BP190313)** during the period (2020-2021) of her study in the Department of Physics, Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance. The dissertation has not formed the basis for the award of any degree or similar title to any candidate of any College or University.



**Head of the Department**

Dr. M. Jose  
Assistant Professor of Physics  
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**Research Supervisor**

Mr.C.THIRUPATHY M.Sc.,M.Phil.,B.Ed.,  
Assistant Professor of Physics  
Sacred Heart College.  
Tirupattur Dt 635 601


Submitted to **Sacred Heart College (Autonomous)**, Tirupattur at the Viva-Voice examination held on.....

**Examiner 1**

**Examiner 2**

**CERTIFICATE**

This is to certify that the dissertation, entitled “**THE ANALYSIS OF ANCIENT POTSHARDS EVACUATED FROM ACHAMANGALAM VILLAGE IN TIRUPATTUR DISTRICT, TAMIL NADU, INDIA**”, submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics in a record of original research work done by **A. ALLWIN FERNANDES, (Reg. No: BP190314)** during the period of 2020 – 2021 of his study in the PG and Research Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

  
**Signature of the HOD**

(Dr. M. Jose)

  
**Signature of Research Guide**

(Mr. M. Aravinthraj)

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Examiner – 1

Examiner – 2

Place: Tirupattur,

Date:

## CERTIFICATE

This is to certify that the dissertation entitled “SYNTHESIS OF PURE AND COBALT DOPED  $\text{Nd}_2\text{O}_3$  NANOPARTICLES” submitted to the Sacred Heart College (Autonomous), Tirupattur in the fulfillment of the requirements for the award of degree of Mater of Science in Physics is a record of original work done by **DOMINIC SAVIO C (BP190315)** during the period (2020-2021) of her study in the Department of Physics, Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance. The dissertation has not formed the basis for the award of any degree or similar title to any candidate of any College or University.


  
Head of the Department

Dr. M. Jose  
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Sacred Heart College (Autonomous)  
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Research Supervisor

Mr. D. Rajkumar M.Sc., M.Phil., SET  
Assistant Professor of Physics  
Sacred Heart College (Autonomous)  
Tirupattur – 635 601.

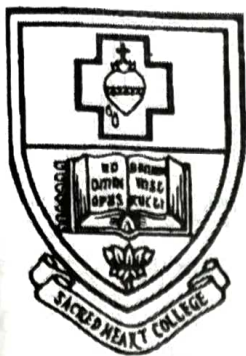
Submitted to Sacred Heart College (Autonomous), Tirupattur at the Viva-Voice examination held on... 20/4/21...

  
Examiner 1

Examiner 2

**Dr. A. DHAYALRAJ, M.Sc., Ph.D.**  
Assistant Professor  
PG & Research Department of Physics  
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**Mr. L. ANANDARAJ, M.Sc., M. Phil. B.Ed.,**  
Assistant Professor, Department of Physics  
Sacred Heart College (Autonomous)  
Tirupattur-635601

## CERTIFICATE

This is to certify that the dissertation, entitled "SYNTHESIS, CRYSTAL GROWTH AND CHARACTERIZATION OF ORGANIC L-VALINE PARA-NITROPHENOL NON LINEAR OPTICAL CRYSTAL " submitted to the Sacred Heart College, Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **NAVEENKUMAR K R (Reg. No: BP190316)** during the period of 2020-2021 for his study in the Department of Physics at Sacred Heart College, Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

**Signature of the Head**

(Dr. M. Jose)

**Research Supervisor & Guide**

(Mr. L. Anandaraj)

**Dr. M. JOSE**, M.Sc., M.Phil., Ph.D.,  
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## CERTIFICATE

This is to certify that the dissertation entitled “**Effect of Shock Waves on structural and Spectroscopic Properties of Zinc Cobaltite Nanoparticles**” submitted to the Sacred Heart College (Autonomous), Tirupattur in the fulfillment of the requirements for the award of degree of Mater of Science in Physics is a record of original work done by **S.SWATHI (BP190317)** during the period (2020-2021) of her study in the Department of Physics, Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance. The dissertation has not formed the basis for the award of any degree or similar title to any candidate of any College or University.



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**(Dr. S. John Sundaram)**

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**Examiner 1**

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**Examiner 2**

## CERTIFICATE

This is to certify that the dissertation entitled “**Investigation on the effect of shock waves on physicochemical properties of nickel cobaltite nanoparticles**” submitted to the Sacred Heart College (Autonomous), Tirupattur in the fulfillment of the requirements for the award of degree of Mater of Science in Physics is a record of original work done by **S.SURUTHI (BP190318)** during the period (2020-2021) of her study in the Department of Physics, Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance. The dissertation has not formed the basis for the award of any degree or similar title to any candidate of any College or University.



**Head of the Department**

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**Examiner 1**

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**Examiner 2**



**MR. G. JAYAKUMAR**, M.Sc., M.Phil., M.E., (Ph.D)  
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### CERTIFICATE

This is to certify that the dissertation, entitled **“SYNTHESIS AND CHARACTERIZATION OF ZnO-CeO<sub>2</sub> AND NiO-CeO<sub>2</sub> NANOCOMPOSITES”**, submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **MS.SUJITHA S, (REG. NO: BP190319)** during the period of 2019-2021 of her study in the Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

  
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(Mr. G. JAYAKUMAR)

## CERTIFICATE

This is to certify that the dissertation entitled “ **IMPACT OF SHOCK WAVES ON TRIS THIOUREA ZINC SULPHATE(TTzs) CRYSTAL**”, submitted to the Sacred Heart College (Autonomous), Tirupattur in the fulfillment of the requirements for the award of the degree of Master of Science in Physics is a record of original work done by **PAVITHARANIS (BP190320)** during the period **(2020-21)** of his studying in the Department of Physics, Sacred Heart College (Autonomous), Tirupattur, under my Supervision and Guidance. The dissertation has not formed the basis for the award of any degree or similar title to any candidate of any College or University.



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**Examiner 1**

**Examiner 2**

## CERTIFICATE

This is to certify that the dissertation entitled "SYNTHEIS AND CHARACTERIAZATION OF PURE NEODYMIUM OXIDE NANOPARTICLES." submitted to the Sacred Heart College (Autonomous), Tirupattur in the fulfillment of the requirements for the award of degree of Mater of Science in Physics is a record of original work done by **K. DHILIPKUMAR (BP190321)** during the period (2020-2021) of her study in the Department of Physics, Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance. The dissertation has not formed the basis for the award of any degree or similar title to any candidate of any College or University.

  
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Examiner 1

Examiner 2

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### CERTIFICATE

This is to certify that the dissertation, entitled “synthesis growth and characterization of benzophenone doped with sodium acid phthalate –A novel semi organic nonlinear optical crystal “ submitted to the Sacred Heart College, Tirupattur in partial fulfilment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **AGNES PRINCY A (Reg.No:BP190323)** during the period of 2019-2021 of her study in the Department of Physics at Sacred Heart College, Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

  
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### CERTIFICATE

This is to certify that the dissertation, entitled “**Effect of Lithium Sulphate Monohydrate on the growths and characterizations of Sodium Acid Phthalate (NaAP) single crystals**” submitted to the Sacred Heart College, TPT (Dt) in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **Vaishnavi A (Reg. No: BP190322)** during the period of 2020-2021 of her study in the Department of Physics at Sacred Heart College, TPT (Dt) under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

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## CERTIFICATE

This is to certify that the dissertation entitled "Synthesis of CuO Nanoparticles by co-precipitation method using pure CuO and doped material ZnO" submitted to the Sacred Heart College(Autonomous), Tirupattur in the fulfilment of the requirements for the award of degree of Mater of Science in Physics is a record of original work done by **A.ANANDA KUMAR(BP190324)** during the period **(2020-2021)** of his studying the Department of Physics, Sacred Heart College (Autonomous), Tirupattur, under my Supervision and Guidance. The dissertation has not formed the basis for the award of any degree or similar title to any candidate of any College or University.



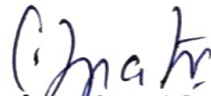
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---

### CERTIFICATE

This is to certify that the dissertation, entitled “**ASSESSMENT OF CRYSTALLOGRAPHIC PHASE STABILITY OF CERIUM OXIDE NANOPARTICLES AT SHOCKED CONDITIONS**” , submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **MISS. S.RAMYA, (REG. NO: BP190325)** during the period of 2019-2021 of her study in the Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

  
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**Signature of the HOD**

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**CERTIFICATE**

This is to certify that the dissertation, entitled “**MINERALOGICAL IDENTIFICATION OF ARCHEOLOGICAL POTTERIES EXCAVATED FROM SENKUNDRAM VILLAGE IN VELLORE DISTRICT, TAMIL NADU, INDIA**”, submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics in a record of original research work done by **M. MANOJ, (Reg. No : BP190326)** during the period of 2020 – 2021 of his study in the PG and Research Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

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**Signature of Research Guide**

(Mr. M. Aravinthraj)

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Examiner – 1

Examiner – 2

Place: Tirupattur,

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### CERTIFICATE

This is to certify that the dissertation, entitled **“EFFECT OF SYNTHESIS ROUTES ON THE MICROSTRUCTURES OF ZINC OXIDE POWDER”**, submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **MISS.N.DIVYA, (REG. NO: BP190327)** during the period of 2019-2021 of her study in the Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

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## BONAFIDE CERTIFICATE

This is to certify that the dissertation, entitled "INVESTIGATION ON THE STRUCTURAL, MORPHOLOGICAL, OPTICAL AND MAGNETIC PROPERTIES OF COBALT FERRITE NANOPARTICLES USING FENUGREEK SEED EXTRACT" submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfilment of the requirement for the Degree of Master of Science in Physics is a record of original research work done by **S. INDUMATHI, Reg. No. BP190328** during the period 2019-2021 for her study in the Department of Physics, Sacred Heart College (Autonomous), Tirupattur under my supervision and guidance. The dissertation has not formed the basis for the award of any degree of similar title to any candidate of my College or University.



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Examiner-1

Examiner-2

Place:

Date:

## CERTIFICATE

This is to certify that the dissertation, entitled “**SYNTHESIS AND CHARACTERIZATION OF ZINC AND NICKEL OXIDE NANOPARTICLES USING *COCOS NUCIFERA* (COCONUT DE-OILED CAKE) EXTRACT**”, submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **PARASARAN M (REGISTER NO: BP190329)** during the period of 2019-2021 of his study in the Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.



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Submitted for Viva-Voice Examination for \_\_\_\_\_

Examiner



Internal Examiner

External Examiner