

DATE: 25.06.2024

सीएसआईआर – केन्द्रीय चर्म अनुसंघान संस्थान CSIR – CENTRAL LEATHER RESEARCH INSTITUTE

(वैज्ञानिक तथा औद्योगिक अनुसंघान परिषद Council of Scientific & Industrial Research) अडयार, चेन्नई, तमिलनाडु Adyar, Chennai – 600 020, Tamil Nadu.

कार्य समापन प्रमाण-पत्र CERTIFICATE OF COMPLETION

This is to certify that Mr. Aravindhan S, a student of M.Sc. Physics has successfully completed the Internship under the guidance of Dr. S.M. Jaimohan, Senior Scientist from 08th May 2024 to 08th June 2024 at Advanced Materials Laboratory, CSIR - Central Leather Research Institute, Chennai.

V. G. Voidyanaltan

Academic Research Coordinator

वी. रवींद्रन V. Ravindran निदेशक Director

गणितीय विज्ञान संस्थान THE INSTITUTE OF MATHEMATICAL SCIENCES C.I.T. CAMPUS, TARAMANI, CHENNAI - 600113



(परमाणु ऊर्जा विभाग, भारत सरकार का एक स्वायत्त संस्थान)

(An Autonomous Institution under Dept. of Atomic Energy, Govt of India)

Phone: 044-2254 3200 [Direct] 2254 3201 [office] Fax: 22541586 & 22543230

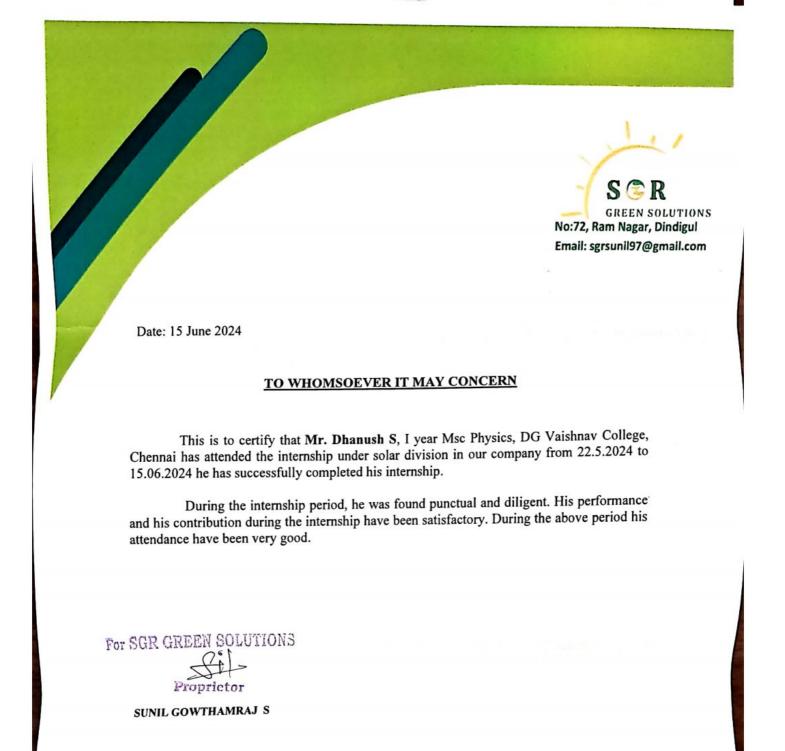
Email: director@imsc.res.in & ravindra@imsc.res.in

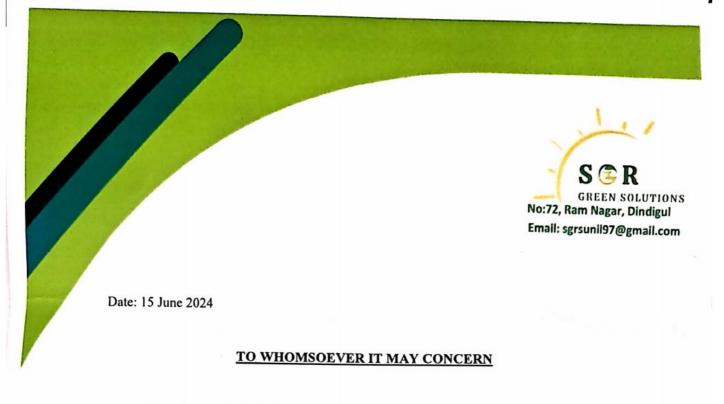
Endorsement Certificate from the Mentor & Host Institute

This is to certify that Mr. Arun Manikandan M, Student Visitor from Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai has successfully completed his internship under the guidance of Prof. V Ravindran of The Institute of Mathematical Science (IMSc), Chennai during the period from 24th May 2024 to 21st June 2024.

Place: Chennai-113 Date: 19th July 2024 वी. स्वींद्रन/V. Ravindran निदेशक/Director गणितीय विज्ञान संस्थान THE INSTITUTE OF MATHEMATICAL SCIENCES (परमाणु ऊर्जा विमाग, भारत सरकार का स्वायत संस्थान) (An Autonomous Institution under Dept. of Atomic Energy, Govt. of India) सी.आई.टी. परिसर, तरमणि, चेन्नई-600 113. C.I.T. CAMPUS, TARAMANI, CHENNAI-600 113.

V. Romindy





This is to certify that Mr. Gowtham J, I year Msc Physics, DG Vaishnav College, Chennai has attended the internship under solar division in our company from 22.5.2024 to 15.06.2024 he has successfully completed his internship.

During the internship period, he was found punctual and diligent. His performance and his contribution during the internship have been satisfactory. During the above period his attendance have been very good.

For SGR GREEN SOLUTIONS

Proprietor

SUNIL GOWTHAMRAJ S





UNIVERSITY OF MADRAS

(Established under the Act of Incorporation XXVII of 1857 Madras University Act 1923) (State University)

DEPARTMENT OF NUCLEAR PHYSICS

(A DST-FIST sponsored department)

SCHOOL OF PHYSICAL SCIENCES GUINDY CAMPUS, CHENNAI 600 025, INDIA. Phone : 044 22202804 (Direct)

Telex : 416376 UNIOM IN Fax : 91- 44-2230 0122 Mobile : 91- 9444803218

E-mail: ravi21068@unom.ac.in

Dr K. Ravichandran Professor and Head

Date: 14.06.2024

To
The Head of the Department
PG Department of Physics
Dwaraka Doss Goverdhan Doss Vaishnav College(Autonomous)
Chennai - 600 106

Sub: Harishriram H (Reg. No: 2313102072105), I M.Sc., Physics, Department of Physics, Dwaraka Doss Goverdhan Doss Vaishnav college(Autonomous) - Internship program done **from 16-05-2024 to 12-06-2024** - regarding.

I am writing to inform you that Mr. HARISHRIRAM H, I M.Sc., Physics, has successfully completed an internship program under my guidance from 16-05-2024 to 12-06-2024. During this internship, he learned Condensed Matter Physics (Magnetism), Magnetic materials for Spintronics applications as well as High-Temperature Superconductivity and Basic Electronics. The candidate showed keen interest in the subject matter and I am fully satisfied with his performance.

Thanking you

14.06.2024 BA

(K. RAVICHANDRAN)

Yours sincerely

PROFESSOR AND HEAD
DEPARTMENT OF NUCLEAR PHYSICS
UNIVERSITY OF MADRAS
GUINDY CAMPUS CHENNAL 600 035

GUINDY CAMPUS, CHENNAI-600 025



DATE: 25.06.2024

सीएसआईआर – केन्द्रीय चर्म अनुसंधान संस्थान CSIR – CENTRAL LEATHER RESEARCH INSTITUTE

(वैज्ञानिक तथा औद्योगिक अनुसंघान परिषद Council of Scientific & Industrial Research) अडयार, चेन्नई, तमिलनाडु Adyar, Chennai – 600 020, Tamil Nadu.

कार्य समापन प्रमाण-पत्र CERTIFICATE OF COMPLETION

This is to certify that Mr. John Milton J, a student of M.Sc. Physics has successfully completed the Internship under the guidance of Dr. S.M. Jaimohan, Senior Scientist from 08th May 2024 to 08th June 2024 at Advanced Materials Laboratory, CSIR - Central Leather Research Institute, Chennai.

V. G. Voi Syana Han

Academic Research Coordinator

INTERNSHIP TRAINING 7th JULY 2024

INTERNSHIP COMPLETION CERTIFICATE

This is to certify that Mr. MADHAVAN.S, Reg No:2313102072107 student of DWARAKA DOSS GOVERDHAN DOSS VAISHNAV COLLEGE pursuing PG DEPARTMENT OF PHYSICS, have attended their Internship training program in our organization during the period from 9/5/2024 to 7/6/2024. In this period he underwent real time training in

" EMBEDDED DEVELOPER"

With Best Regards

CHENNA

Thanks & Regards

HUMAN RESOURCE

Company will not pay any salary/stipend during the period with us.

FABHOST WEB SOLUTIONS

#57, PMG complex, South Usman Road, TNagar, Chennai - 17. Ph: 044-48519444, 9176990190. Email: fabhostindia@gmail.com www.fabhost.in





DATE: 25.06.2024

सीएसआईआर — केन्द्रीय चर्म अनुसंधान संस्थान CSIR — CENTRAL LEATHER RESEARCH INSTITUTE

(वैज्ञानिक तथा औद्योगिक अनुसंघान परिषद Council of Scientific & Industrial Research) अडयार, चेन्नई, तमिलनाडु Adyar, Chennai – 600 020, Tamil Nadu.

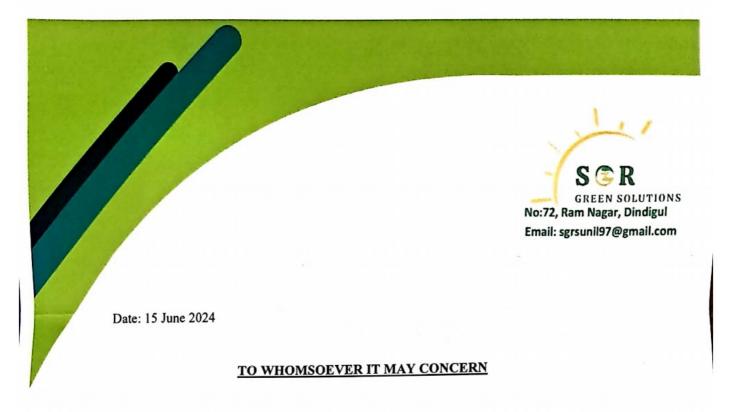
कार्य समापन प्रमाण-पत्र CERTIFICATE OF COMPLETION

This is to certify that Mr. Matheswaran M, a student of M.Sc. Physics has successfully completed the Internship under the guidance of Dr. S.M. Jaimohan, Senior Scientist from 08th May 2024 to 08th June 2024 at Advanced Materials Laboratory, CSIR - Central Leather Research Institute, Chennai.

CSIR-CLRI

V. G. Voidyana Han

Academic Research Coordinator



This is to certify that Mr. Prasana Yugesh K, I year Msc Physics, DG Vaishnav College, Chennai has attended the internship under solar division in our company from 22.5.2024 to 15.06.2024 he has successfully completed his internship.

During the internship period, he was found punctual and diligent. His performance and his contribution during the internship have been satisfactory. During the above period his attendance have been very good.

For SGR GREEN SOLUTIONS

SUNIL GOWTHAMRAJ S





UNIVERSITY OF MADRAS

(Established under the Act of Incorporation XXVII of 1857 Madras University Act 1923) (State University)

DEPARTMENT OF NUCLEAR PHYSICS

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SCHOOL OF PHYSICAL SCIENCES

GUINDY CAMPUS, CHENNAI 600 025, INDIA.

Phone : 044 22202804 (Direct)

Telex : 416376 UNIOM IN Fax : 91- 44-2230 0122 Mobile : 91- 9444803218

E-mail: ravi21068@unom.ac.in

Dr K. Ravichandran Professor and Head

Date: 14.06.2024

To
The Head of the Department
PG Department of Physics
Dwaraka Doss Goverdhan Doss Vaishnav College(Autonomous)
Chennai - 600 106

Sub: Santhosh M (Reg. No: 2313102072110), I M.Sc., Physics, Department of Physics, Dwaraka Doss Goverdhan Doss Vaishnav college(Autonomous) - Internship program done from 16-05-2024 to 12-06-2024 - regarding.

I am writing to inform you that Mr. SANTHOSH M, I M.Sc., Physics, has successfully completed an internship program under my guidance from 16-05-2024 to 12-06-2024. During this internship, he learned Condensed Matter Physics (Magnetism), Magnetic materials for Spintronics applications as well as High-Temperature Superconductivity and Basic Electronics. The candidate showed keen interest in the subject matter and I am fully satisfied with his performance.

Thanking you

Yours sincerely

(K. RAVICHANDRAN)

PROFESSOR AND HEAD
DEPARTMENT OF MUCLEAR PHYSICS
UNIVERSITY OF MADRAS
GUINDY CAMPUS, CHENNAI-600 025





Indian Institute of Technology Madras Chennai - 600036

Dr. N. Harish Kumar Professor Advanced Magnetic Materials Laboratory Department of Physics

Tel.: +91-44-2257 4879 Fax: +91-44-2257 4852 Mobile: +91-9003224720 Email: nhk@iitm.ac.in

Testimonial

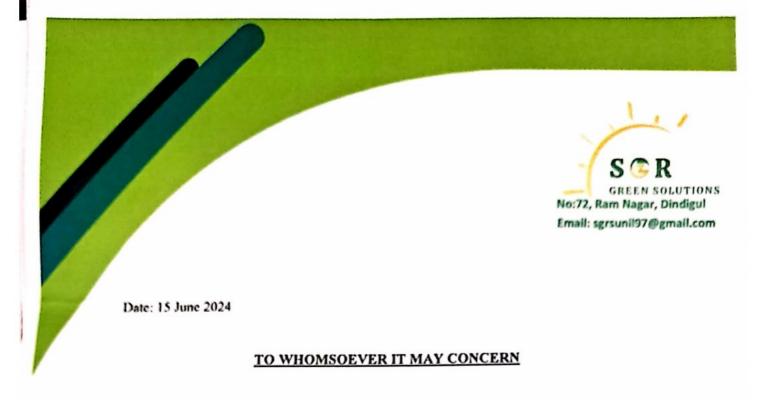
Mr. Shakthi R., a first year M.Sc. student of the Department of Physics, DG Vaishnav College, Chennai, did his summer internship in our Advanced Magnetic Materials Laboratory of the Department of Physics, Indian Institute of Technology Madras from 07/05/2024 to 21/06/2024.

During the internship period he learnt some basics of Magnetism and then about Halfmetallic Ferromagnetism in Heusler Alloys. He carried out a mini project on the Synthesis and Characterization of a Heusler Alloy Cr2ZrSi which has been theoretically predicted to be a Halfmetallic Ferromagnet based on band structure calculations. He synthesized the material by Arc melting technique. He carried out the structural characterization by X-ray diffraction analysis. The microstructural characterization and compositional analysis were done using a Scanning Electron Microscope and Energy Dispersive X-ray Spectroscopy respectively. He also learnt investigation of surface topography by Atomic Force Microscopy.

During my interactions I found him to be sincere and hard working. He visited the lab regularly. He showed keen interest to learn new things. He was friendly and integrated well into my research group. I wish him success in all future endeavours.

> N.14:1-(N. Harish Kumar)

Prof. N. HARISH KUMAR Advanced Magnetic Materials Laboratory Department of Physics Indian Institute of Technology Madras Chennai - 600 036, India



This is to certify that Mr. Thasith Bharathi M, I year Msc Physics, DG Vaishnav College, Chennai has attended the internship under solar division in our company from 22.5.2024 to 15.06.2024 he has successfully completed his internship.

During the internship period, he was found punctual and diligent. His performance and his contribution during the internship have been satisfactory. During the above period his attendance have been very good.

For SGR GREEN SOLUTIONS

Proprietor

SUNIL GOWTHAMRAJ S





Plot No 30, Ground Floor, Prajwal Gangotri Apartment, 9th Avenue, Ashok Nagar, Chennai - 600083. +91938040747 kirankumargj@creamcollar.com janakiraman.vasudevan@creamcollar.com

INTERNSHIP CERTIFICATE

This is to certify that, Thirumaran. V. N, currently pursuing M.Sc. in Physics at D.G. Vaishnav College, has successfully completed an internship with Cream collar as a member of the Research Team on Automotive Technology.

The internship was conducted under the guidance of our team and covered the period from 22/05/2024 to 22/07/24. During this internship, Thirumaran. V. N. demonstrated a strong grasp of scientific principles of automotive technology.

We are confident that the skills and knowledge has gained during this internship will prove valuable in their future academic and professional endeavours.

We wish them the best of luck in their future pursuits.

Kiran Kumar,

CEO & Co-founder

Cream collar



CERTIFICATE

of Internship

This is certify that **Ms Ashmithra Asokan.** A has successfully completed one month (13th May 2024- 13th June 2024) internship programme on **Synthesis And Characterization of Nanomaterials** at Department of Physics, St. Peter's Institute of Higher Education and Research, Chennai-54, Tamil Nadu. We wish her all the best for future.

Dr. M. Gunaseelan Convener

M.G.L.



Dr. S. Stella Mary Head of the Department





CERTIFICATE

of Internship

This is certify that **Ms Dharshini R** has successfully completed one month (13th May 2024-13th June 2024) internship programme on **Synthesis And Characterization of Nanomaterials** at Department of Physics, St. Peter's Institute of Higher Education and Research, Chennai-54, Tamil Nadu. We wish her all the best for future.

H. G. L. Dr. M. Gunaseelan Convener

Dr. S. Stella Mary Head of the Department



THE ACADEMY OF SCIENCES CHENNAI

Guindy Campus, Chennai – 600 025 (Reg. No: 108/2014)

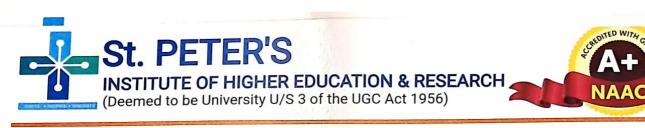
SUMMER RESEARCH INTERNSHIP PROGRAMME (SRIP-2024)

CERTIFICATE OF INTERNSHIP

This is to certify that **Ms. V. Elakya**, (SRIP-PS-24-003), DG Vaishnav College, Chennai, has successfully completed her **Summer Research Internship Programme** (SRIP-2024) organized by The Academy of Sciences Chennai, during the period 20/05/2024 to 10/06/2024, under the guidance of **Dr. G. Kalpana**, Dept. of Physics, Anna University, Chennai.

Dr. P. Prabhu Convener Dr. A. Stephen Secretary

Dr. J. Kumar President



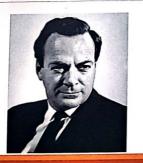
CERTIFICATE

of Internship

This is certify that **Ms Keerthi D** has successfully completed one month (13th May 2024-13th June 2024) internship programme on **Synthesis And Characterization of Nanomaterials** at Department of Physics, St. Peter's Institute of Higher Education and Research, Chennai-54, Tamil Nadu. We wish her all the best for future.

M.G. S.

Dr. M. Gunaseelan Convener



Dr. S. Stella Mary Head of the Department



University of Madras Guindy Campus, Chennai - 600 025.

Dr. S. Balakumar Ph.D., FRSC(UK), FInstP (IOP, UK)

Professor, NCNSNT

Chairperson, School of Nanoscience and Photonics Office: 91-44-22202749; Mobile: 91-9442617848

E-mail: balasuga@yahoo.com; balakumar@unom.ac.in:

CERTIFICATE

This is to certify that this dissertation entitled "Exploring the Impact of Natural Solvents in Calcium Phosphate Synthesis: An insight into crystallographic properties and Biocompatibility" submitted by MADHUSHREE.J (2313102072118) for the Degree of Master of Science in Physics at Dwaraka Doss Goverdhan Doss Vaishnav College, is an authentic work carried out by them under my supervision and guidance. The results embodied in this thesis are new and have not been submitted to any other university or institution for the award of any degree.

Date: 18 06 2024

Place: Chennai

(Prof. S. Balakumar) Research Supervisor

Bokos





Indian Institute of Technology Madras Chennai - 600036

Dr. N. Harish Kumar Professor Advanced Magnetic Materials Laboratory Department of Physics

Tel.: +91-44-2257 4879 Fax: +91-44-2257 4852 Mobile: +91-9003224720 Email: nhk@iitm.ac.in

Testimonial

Ms. Mahati Akarshika D., a first year M.Sc. student of the Department of Physics, DG Vaishnav College, Chennai, did her summer internship in our Advanced Magnetic Materials Laboratory of the Department of Physics, Indian Institute of Technology Madras from 07/05/2024 to 21/06/2024.

During the internship period she learnt some basics of Magnetism and then about Halfmetallic Ferromagnetism in Heusler Alloys. She carried out a mini project on the Synthesis and Characterization of a Heusler Alloy Cr2ZrSi which has been theoretically predicted to be a Halfmetallic Ferromagnet based on band structure calculations. She synthesized the material by Arc melting technique. She carried out the structural characterization by X-ray diffraction analysis. The microstructural characterization and compositional analysis were done using a Scanning Electron Microscope and Energy Dispersive X-ray Spectroscopy respectively. She also learnt investigation of surface topography by Atomic Force Microscopy.

During my interactions I found her to be sincere and hard working. She visited the lab regularly. She showed keen interest to learn new things. She was friendly and integrated well into my research group. I wish her success in all future endeavours.

> N.14:1 -(N. Harish Kumar)

Prof. N. HARISH KUMAR Advanced Magnetic Materials Laboratory Department of Physics Indian Institute of Technology Madras Chennai - 600 036, India



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DEPARTMENT OF NUCLEAR PHYSICS

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SCHOOL OF PHYSICAL SCIENCES GUINDY CAMPUS, CHENNAI 600 025, INDIA. Phone : 044 22202804 (Direct) Telex : 416376 UNIOM IN

Fax : 91- 44-2230 0122 Mobile : 91- 9444803218

E-mail: ravi21068@unom.ac.in

Dr K. Ravichandran Professor and Head Date: 14. 06. 2024

To
The Head of the Department
PG Department of Physics
Dwaraka Doss Goverdhan Doss Vaishnav College(Autonomous)
Chennai - 600 106

Sub: Nivethasri R(Reg. No: 2313102072121), I M.Sc., Physics, Department of Physics, Dwaraka Doss Goverdhan Doss Vaishnav college(Autonomous) - Internship program done from 16-05-2024 to 12-06-2024 - regarding.

I am writing to inform you that Ms. NIVETHASRI R, I M.Sc., Physics, has successfully completed an internship program under my guidance from 16-05-2024 to 12-06-2024. During this internship, she learned Condensed Matter Physics (Magnetism), Magnetic materials for Spintronics applications as well as High-Temperature Superconductivity and Basic Electronics. The candidate showed keen interest in the subject matter and I am fully satisfied with her performance.

Thanking you

14.06. ADR 4

(K. RAVICHANDRAN)

Yours sincerely

PROFESSOR AND HEAD
DEPARTMENT OF NUCLEAR PHYSICS
UNIVERSITY OF MADRAS
GUINDY CAMPUS, CHENNAI-600 025



DATE: 25.06.2024

सीएसआईआर - केन्द्रीय चर्म अनुसंधान संस्थान CSIR – CENTRAL LEATHER RESEARCH INSTITUTE

(वैज्ञानिक तथा औद्योगिक अनुसंघान परिषद Council of Scientific & Industrial Research) अडयार, चेन्नई, तमिलनाडु Adyar, Chennai – 600 020, Tamil Nadu.

कार्य समापन प्रमाण-पत्र CERTIFICATE OF COMPLETION

This is to certify that Ms. J. Prethiksha, a student of M.Sc. Physics has successfully completed the Project work under the guidance of Dr. J Maheshkumar, Scientist from 08th May 2024 to 08th June 2024 at Advanced Materials Laboratory, CSIR - Central Leather Research Institute, Chennai. CSIR-CLRI

V. G. Voidyana Han

Academic Research Coordinator



DEPARTMENT OF PHYSICS ANNA UNIVERSITY



COLLEGE OF ENGINEERING (GUINDY CAMPUS)

SARDAR PATEL ROAD

CHENNAI 600 025

Dr. Raj Kumar Ramamoorthy Assistant Professor Email: rkramamoorthy@annauniv.edu

Phone: +91-44-22358700

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Ramani. S M.Sc. (1st Year), the Department of Physics, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai worked as a summer intern in the Department of Physics, Anna University for the period from 10-05-2024 to 06-06-2024. During this period, she worked on the following project: "Synthesis and Characterization of MnO₂ Nanoparticles". This work was done under my guidance in the partial fulfillment of the aforementioned degree course. For further information, please feel free to contact me either via email or telephone.

Yours sincerely

Raj Kumar Ramamoorthy

Dr. Raj Kumar Ramamoorthy
Assistant Professor
Department of Physics
College of Engineering, Guindy Campus
Anna University, Chennai - 600 025





CERTIFICATE

of Internship

This is certify that **Ms Ramya D** has successfully completed one month (13th May 2024- 13th June 2024) internship programme on **Synthesis And Characterization of Nanomaterials** at Department of Physics, St. Peter's Institute of Higher Education and Research, Chennai-54, Tamil Nadu. We wish her all the best for future.

Dr. M. Gunaseelan Convener

H.9-2.

Dr. S. Stella Mary
Head of the Department







Summer Training in Physics and Chemistry

Indira Gandhi Centre for Atomic Research Kalpakkam 603 102, Tamil Nadu, India

This is to certify that Ms. Saroo sree. R of Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai attended the

Summer Training in Physics

for the pre-final post-graduate students during 30th May to 10th July, 2024 and carried out the project work:

Studies on rare earth based double perovskite oxide systems

Course Coordinator

STIP

Director IGCAR



DATE: 25.06.2024

सीएसआईआर - केन्द्रीय चर्म अनुसंधान संस्थान CSIR – CENTRAL LEATHER RESEARCH INSTITUTE

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कार्य समापन प्रमाण-पत्र CERTIFICATE OF COMPLETION

This is to certify that Ms. Sharmila, a student of M.Sc. Physics has successfully completed the Internship under the guidance of Dr. J Maheshkumar, Scientist from 08th May 2024 to 08th June 2024 at Advanced Materials Laboratory, CSIR - Central Leather Research Institute, Chennai.

CSIR-CLRI

V. G. Voidyana Han

Academic Research Coordinator



INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI भारतीय प्रौद्योगिकी संस्थान तिरुपत

Yerpedu - Venkatagiri Road, Yerpedu Post, Tirupati District, Andhra Pradesh - 517619

DEPARTMENT OF PHYSICS

Date: 12.07.2024

TO WHOM IT MAY CONCERN

This is to certify that SRUTHI RAMASUBRAMANIAN, has served as a research intern in the Department of Physics at the Indian Institute of Technology Tirupati, from 15.05.2024 to 12.07.2024.

During that period, she worked under the supervision of Dr. Arijit Sharma on the project titled "Experimentation with a Fabry-Perot cavity for precision laser spectroscopy". The student performance has been satisfactory.

Dr. Rudra Sekhar Manna Head

Department of Physics Indian Institute of Technology Tirupati

प्रमुख / Head भौतिक विज्ञान विमाग / Dept. of Physics भारतीय प्रौद्योगिकी संस्थान तिरुपति Indian Institute of Technology Tirupati तिरुपति / Tirupati-517 619



SUMMER INTERNSHIP TRAINING PROGRAM IN PHYSICS (SITPIP-2024)



Organized By

SCIENCE CITY

Government of Tamil Nadu, Chennai

THE ACADEMY OF SCIENCES, CHENNAI

(formerly Tamil Nadu Academy of Sciences)

in Association with

National Center For Nano Science And Nano Technology, University of Madras, Chennai - 600025. and Department of Physics, Bharathiar University, Coimbatore - 641046.

Certificate of Participation

This is to Certify that

Mr./Ms KATHIR D. DWARKA DOSS GOVERDHAN DOSS VAISHNAV COLLEGE. has completed the "Summer Internship Training Program in Physics (SITPIP-2024)" organized by Science City Government of Tamil Nadu, Chennai & The Academy of Sciences, Chennai, held from 24-05-2024 to 14-06-2024

> Dr. M. Balasubramaniam **Director - SITPIP**

Dr. T. Prakash **Director - SITPIP**

Joint Secretary & Coordinator - SITP 2024

Secretary **Academy of Sciences**