

Dr. MARIA BERNADETTE LEENA. A
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PG AND RESEARCH DEPARTMENT OF PHYSICS
HOLY CROSS COLLEGE,(AUTONOMOUS)
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EDUCATIONAL QUALIFICATION

COURSE	INSTITUTION	BOARD/ UNIVERSITY	YEAR OF COMPLETION	MARKS IN %
Ph.D (Physics)	Holy Cross College, (Autonomous)Tiruchirappalli	Bharathidasan University	2021	-
M. Phil (Physics)	Centre for Distance Education, Bharathidasan University, Tiruchirappalli	Bharathidasan University	2005	80.8%- Distinction
M.Sc (Physics)	Bishop Heber College (Autonomous),Tiruchirappalli	Bharathidasan University	1999	72%
B.Sc (Physics)	Holy Cross College, (Autonomous)Tiruchirappalli	Bharathidasan University	1997	74 % - First Class

WORKING EXPERIENCE

ACADEMIC POSITIONS	YEAR
Department Coordinator	2006-2007
Staff Secretary (Shift II)	2010- 2012

Co-ordinator of the Department (Shift II)	2012 -2014
HRD Core Committee Member	2013-2017
Convener –International Conference	2016- 2017
Intercom Prayer in charge(shift II)	2017-2018
Academic Core committee member	2017-2018
Exam Core Committee member	2018- 2021
Exam Core Committee- Coordinator	2021 onwards

EXTRA CURRICULAR	YEAR
AICUF Coordinator	2003-2005
Fine Arts Secretary (Shift II)	2008-2009

Examiner in Central Valuation at Bharadhidasan University, St.Joseph's College, Bishop Heber College, Cauvery College, Indira Gandhi College, UDC, PSG (coimbatore), Thigrajar college (Madurai),

RESEARCH INTERESTS

- Crystal growth and Characterization
- Crystal Growth: Gel method and Solution growth of biomaterials
- DMS Quantum dots and super Para magnetic materials
- Magnetic nano materials for photo catalytic Activity and Antibacterial Activity
- Synthesis Bio and Silver nano particles and their application
- Carbon dots synthesis and application

PAPERS PUBLISHED IN JOURNALS

1.A. Maria Bernadette Leena, K. Raji, "Synthesis and characterization of pure and Fe doped zinc sulphide nano particles" International Journal of Education and Society, Feb,2017, Vol 3, No 2 ISSN 2393-9419,e ISSN 2393-8919.p 32-3

2.A. Maria Bernadette Leena, K. Raji, "Synthesis and structural Analysis of doped and undoped cadmium sulphide nanoparticles" International Journal of Advance Engineering and Research Development, National Conference On Nanomaterials, (NCN-2017), Volume 4, Special Issue 6, Dec.-2017 (UGC Approved)

3.A. Maria Bernadette Leena, K. Raji," Room temperature Ferromagnetism in Fe doped CdS nano particles" Materials Today Proceedings, Volume 8, Part 1, 2019, Pages 362-370, -Google Scholar citation-8

4.A. Maria Bernadette Leena, K. Raji," Magnetic properties of nickel doped Zinc sulphidenano particles" AIP- Conference Proceedings and International Journal of Scientific Research in Physics and Applied Sciences, ISSN:2348-3423 (Online) (ISROSET Publishers). Google Scholar citation -1

5.A. Maria Bernadette Leena, K. Raji, "Photo catalytic activity of pure and nickel doped cadmium sulphide nano particles synthesized by co precipitation method". Journal of Nanoscience and Technology (JNST), ISSN: 2455-0191 JACS publishers- Google Scholar citation-5

6.A. Maria Bernadette Leena, K. Raji," Room temperature Ferromagnetism in Cobalt doped CdS quantum dots" ,Adalya Journal , 9, 1153-1160.- Google Scholar citation-2

PAPERS PUBLISHED IN CONFERENCE PROCEEDINGS

1.C.Ravidhas, V. Antony Raj, A. Juliat Josephine, S.M.Sathiya, **A. Maria Bernadette Leena**,"Preparation and characterization of Mg₂SnO₄ thin films prepared by spray pyrolysis Technique",Materials Science Proceedings, 2012. ISBN:978-93-81236-16-1.

REVIEWER IN

- 1. Journal of Material Science, Materials in electronics ISSN : 0957-4522,**
- 2. Journal of Pharmaceutical Science International**

PAPERS AWARDED

- Best III Oral Paper Presentation Cash award, at the National Conference on Nano materials – Preparation, Characterization And Devices (NMPCD-2008),held at Bishop Heber college, Tiruchirappalli, on 14th March 2008.**

- National conference on energy conversion and conversion,(NMECC), Bishop Heber college,2009, received **3rd Prize for poster presentation.**
- BRNS sponsored National Conference on Nanomaterials (NCN-2017), Organized by Arignar Anna government Arts College, Namakal -637 002, 20-21 July, 2017_ **Best Oral presentation Award**
- **Best paper award** In the International conference on Nano Photonics organized by PG and Research Department of Physics, Tiruchirappalli 2, during 7th and 8th March2023, on **“Carbon dots based biosensors synthesized using orange Peel”**

PAPERS PRESENTED IN INTERNATIONAL CONFERENCES

- International Conference on “Materials for Energy and Environment, (ICMEE 2018)”, Organized by **Loyola institute of Frontier Energy (LIFE) Loyola College(Autonomous)**, Chennai -34,February 22nd and 23rd ,2018.
- International Conference on Recent Advances in Materials Science (ICRAMS-2019), at **National College (Autonomous)**, Tiruchirappalli, February 4-6, 2019.
- Paper presented In the International conference on **Nano Photonics organized by PG and Research Department of Physics, Tiruchirappalli 2**, during 7th and 8th March 2023, on **“Carbon dots based biosensors synthesized using orange Peel”**
- International conference on recent advances in Physical science-ICRAPS 2024.

PAPERS PRESENTED AT NATIONAL CONFERENCES

- Studies on the Growth and characterization of Some Oxalate single crystals in silica gel”, National Seminar on Recent Advances in Material Science, Cauvery College, Trichy,2008.
- Growth of Some Mixed metal Oxalate Single Crystals in Silica Gel, National Seminar on Recent Advances in Material Science”,Cauvery College, Tiruchirappalli, 2008.
- Crystal Growth of Pure and Doped Magnesium Hydrogen Phosphate Single crystals in Silica Gel”, RAMS-2008. Cauvery College, Tiruchirappalli,2008.
- Spectral, optical and Mechanical Studies of Nicotinic Acid Doped and Lactic Acid Doped KDP Single Crystals’ , National Conference on Nano materials – Preparation, Characterization and Devices.Bishop Heber college, 2008.
- National conference on advances in Material Science(NCAMS),UGC,CSIR,and TNSCST sponsored, Department of Physics, Annamalai University. 1st and 2nd March ,2012. Chidambaram.
- National conference on Nano materials (NCN-2017), Arignar anna government Arts College, Namakal -637 002, 20-21 July, 2017.

- Nano National Summit: Current Trends and Future perspectives (NNSCTPF-2019), organized by PG and research department of Chemistry, Holy Cross College, 9th and 10th January, 2019.

SUMMER SCHOOL/ SHORTTERM COURSE

1. Indian Summer School on Crystal Growth(ISSCG-2020), conducted by SSN research Centre, SSN Institutions, (Autonomous), Chennai 110, In association with Indian Association for Crystal Growth (IACG), 14-23rd May 2020.
2. Short term on “Journey from Semiconductor Physics to Smart Devices to Intelligent Automation” conducted by National Institute of Technology Srinagar, in collaboration with semiconductor society of India.
3. AICTE sponsored Short term course on Advanced ,material characterizations _ from fundamental towards applications, Department of Ceramic engineering and Department of Metallurgical engineering, IIT (BHU), Varanasi, 22-26th Feb, 2021
4. Six-day FDP on Recent Trends in Materials Physics (FDPRTMP-21) , National Institute of Technology Srinagar, in collaboration with semiconductor society of India, 06/07/2021 to 10/07/2021
5. FDP on digital skills for Effecting teaching RUSA 2.0 Entrepreneurship and Career hub, University of Madras, Chennai, 22nd- 24th July2020

WORKSHOPS AND CONFERENCES ATTENDED

1. International networking of Human Resource industry and technology, Organised by Holy Cross College(Autonomous),Tiruchirappalli. January 10-12, 2001.
2. International conference on Sustainable Development and Management Of Natural resources, Organised by Holy Cross College, (Autonomous), on 15-17 March 2003.
3. State level seminar on “Recent trends in the field of Crystals and Microwave Communication” organised by Dhanalakshmi Srinivasan College of Arts & Science for Women on 28th February 2005
4. National Seminar on Recent Advances in Material Science, Cauvery College, Trichy during 15th & 16th February.2008.
5. National Conference on Nano materials – Preparation, Characterization and Devices(NPCD_08), Bishop Heber College, Trichy on March 14th 2008
6. International workshop on Advanced Energy Materials, (IWAEM), School of Physics, Alagappa University, 2012.

7. Workshop on “Elemental, compound and phase analysis by Powder X-ray diffraction” Organized by Department of Physics, National Institute of Technology, Tiruchirappalli-15, held on 19-20th Sept, 2014.
8. Workshop on publishing in E journals, Organized by Department of Library, Holy Cross College, Tiruchirappalli, 2014
9. National Conference on “Advanced Materials (NCAM-2016), Organized by St. Joseph’s College (autonomous), Tiruchirappalli -620 002, on 7th October, 2016.
10. National Workshop on “Optical Characterization of Materials” (NWOCM -2016), organized by SPIE-Student Chapter, Department of Physics, Gandhigram Rural Institute-Deemed University, Gandhigram, held on 24th October 2016.
11. BRNS sponsored National Conference on Nanomaterials (NCN-2017), organized by Arignar Anna government Arts College, Namakal -637 002, 20-21 July, 2017
12. Two days workshop on ICT enabled Teaching Learning organized by Marian College Kuttikkanam (Autonomous), in association with All India Association for Christian Higher Educations (AIACHE) on 10th and 11th January 2019.
13. National Youth conference organized by Marian College Kuttikkanam (Autonomous), in association with all India Association for Christian higher educations (AIACHE) on 10th and 13th January 2019.
14. UGC-HRDC sponsored twelfth online faculty induction programme conducted by Bharadhidasan university from 28.10.2022 to 26.11.2022 and obtained A grade.

ONLINE WORKSHOPS AND CONFERENCES ATTENDED- 2020- 2021

Seminar/workshop/conference with topics	Participated/presented with title	Sponsored by	Place and Duration
1.National webinar entitled “Research Publication: Skills, Ethics, and Misconducts	Participated	Department of Chemistry, Kumaraguru College of Technology, Coimbatore,	15 th May 2020
2. Role of teachers in Teaching, Learning and Curriculum enrichment with Modern Technology	Participated	Maharashtra Union of Secular Teachers (MUST)	14 th May 2020
3. HCC cares webinar Series: Optimizing family during lockdown	Participated	Holy Cross College, Trichy 2	19 th May 2020
4. Indian Summer School on Crystal Growth(ISSCG-2020)	Participated	SSN research Centre, SSN Institutions, (Autonomous), Chennai 110, In association with Indian Association for Crystal Growth (IACG)	14-23 rd May 2020
5. Silicate Coated upconverting Nanoparticles for optical and diagnosis applications	Participated	School of Chemical and Biotechnology, SASTRA deemed to be University	27 th May 2020
6. Everything started with Nothing – Make a start	Participated	Crescent Innovation and Incubation Council(CIIC),Chennai	13 th May 2020
7. International webinar series on Astronomy and Astrophysics: The Universe- Reaching through Radio Waves	Participated	Department of Applied Physics, Karunya Institute of Technology and Sciences, Coimbatore”	29 th May 2020
		Department of Electronics and Physics,	

8. Electron Microscopy: An essential tool for Nano materials Characterization	Participated	Hindustan College of Arts and Science (Autonomous), Coimbatore,	29 th May 2020
9. The implication of NEP 2020 for higher education and Role of Teachers	Participated	IQAC, Holy Cross College, Tiruchirappalli	25 th August 2020
10. Dielectric materials and their characterization studies in the microwave frequency region	Participated	Department of Basic Sciences and Humanities, Vignan Institute of Management and technology for women, Hyderabad	14 th August 2020
11. 2020 FDP on NAAC Accreditation Assessment: Mastering Criteria 1-to-7	Participated	Nirmal integrated consultancy(NIC) in association of research scholars (IARS),Agarwal education solution,Ovocor Zen minder Consultancy	30 th May 2020
12. FDP on digital skills for Effecting teaching	Participated	RUSA 2.o Entrepreneurship and Career hub, University of Madras, Chennai	22 nd - 24 th July 2020
13. Combat pandemic stress through Yoga	Participated	Holy Cross College(Autonomous)	21 June 2020
14. FDP on research capacity building under UGC scheme	Participated	Stride component 1. VO Chidambaram college, Toothukudi	15 th to 17 th June 2020

15. International webinar series on Astronomy and Astrophysics – A stars dance at the center of the milky way Galaxy	Participated	Department of Applied Physics, Karunya Institute of Technology and Sciences, Coimbatore”	19 June2020
16. One day International webinar on Flexible energy storage devices	Participated	Jointly organized by centre for Nano science and Technology, IST, JNTU, Hyderabad and Dayalbag educational institute, Agra Under DST SERB &TEQIP III-Mentoring /twinning system	20 th June2020
17. Faculty orientation webinar series on Risk orientation in times of Crisis	Participated	HCC	12 th June, 2020
18. FD webinar series on Andragogy of online teaching	Participated	HCC	29 th May, 2020
19. Unsolved Problems in Physics	Participated	Department of Physics, CUSAT organised by Academy of Physics teachers, Kerala	23 rd May,2020
20.AICTE sponsored Short term course on Advanced ,material characterizations _ from fundamental towards applications	Participated	Department of Ceramic engineering and Department of Metallurgical engineering, IIT(BHU), Varanasi	22-26 th Feb, 2021
21.Six-day FDP on Recent Trends in Materials Physics (FDPRTMP-21)	Participated	Karpagam Academy of Higher Education, Coimbatore.	June 22-28, 2021
22. Short term on “Journey from Semiconductor Physics to Smart Devices to Intelligent Automation”	Participated	National Institute of Technology Srinagar, in collaboration with semiconductor society of India	06/07/2021 to 10/07/2021

Declaration

I hereby declare that all the information provided above are true up to the best of my knowledge.

Date: 16/10/2024

Place: Trichy

Yours Sincerely,

Dr. Maria Bernadette Leena