## Mr.M.SASIKUMAR

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## Qualification

| Degree | Branch  | Institution / University                | Year of Passing |
|--------|---------|---|-----------------|
| PhD    |         | Bharathidasan University                | 2020            |
| M.Phil | PHYSICS | Bharathidasan University                | 2009            |
| MSc    | PHYSICS | Bh <mark>arat</mark> hidasan University | 2008            |
| BSc    | PHYSICS | Bharathidasan University                | 2006            |

Ph.D. Details

Title of Thesis

Area of Specialization

DESIGN OF FLEXIBLE NANOCOMPOSITE SOLID

POLYMER ELECTROLYTES FOR LITHIUM ION

RESEARCH Supervisor

Dr. P. Sivakumar

Periyar EVR College, Trichy 23

Private of Award

29-05-2020

Cleared NET / SET : Details Year of Passing

## **Additional Qualification**

| Name of Course | Place of Study | Date | Duration |
|----------------|----------------|------|----------|
| PGDCA          | Trichy         | 2008 | 1 year   |

# **Work Experience**

| Name of Institution        | Address of Institution | Designation         | From       | То         |
|----------------------------|------------------------|---------------------|------------|------------|
| Bishop Heber College       | Puthur, Trichy-17.     | Assistant Professor | July 2011  | Till date  |
| Sudharsan Arts and Science | Puddukkotai            | Lecturer            | 01/12/2009 | 09/07/2011 |
| College                    |                        |                     |            |            |

U.G.: 12 Years P.G.: 10 Years M.Phil. Ph.D.

Research Guidance

U.G.: 4 P.G.: 10 Yesrs M.Phil.: Ph.D.: 9 Years

## **Table of Contents**

| 1.  | Conferences / workshops / Seminars Attended  | 17    |
|-----|--|-------|
| 2.  | Research Papers Presented                    | 4     |
| 3.  | Publication in Journals                      | 18    |
| 4.  | Publication in Books                         | 1     |
| 5.  | Books Published / Edited                     | 0     |
| 6.  | Conferences / Workshops / Seminars Organised | 1     |
| 7.  | Research Projects                            | 2     |
| 8.  | Resource Person                              | 1     |
| 9.  | Consultancy                                  | 0     |
| 10. | Awards Recieved                              | 0     |
| 11. | Patent                                       | 0     |
| 12. | Extension Activities Undertaken              | 0     |
| 13. | Professional Membership                      | 0     |
| 14. | M.Phil. / Ph.D. Produced                     | 0 / 0 |

- 17
- National level Workshop on "RAMMA" sponsored by BHC organized by Department of Physics at Trichy during 30/03/2021 to 31/03/2021.
- International level Conference on "ADVANCES IN FONCTIONAL MATERIALS" sponsored by Kalinga Institute of Industrial Technology (KIIT) Deemed to be University, Bhubaneswar, Odisha, India. organized by Kalinga Institute of Industrial Technology (KIIT) Deemed to be University, Bhubaneswar, Odisha, India. at online during 26/08/2020 to 28/08/2020.
- National level Conference on "3D Printing for Design and Advanced Development Applications for Automotive Sector, Medical Devices, Missiles, Customized Gifts, Drones and
  Robots" sponsored by NAFEMS in association with Rajarambapu Institute of Technology, Islampur,
  Maharashtra and Siddaganga Institute of Technology, Tumkuru, Karnataka organized by NAFEMS in
  association with Rajarambapu Institute of Technology, Islampur, Maharashtra and Siddaganga
  Institute of Technology, Tumkuru, Karnataka at online during 06/05/2020 to 08/05/2020.
- 4. National level Orientation on "Managing Online Classes and Co-Creating MOOCS" sponsored by MINISTRY OF HUMAN RESOURCE DEVELOPMENT PANDIT MADAN MOHAN MALAVIYA NATIONAL MISSION ON TEACHERS AND TEACHING organized by Ramanujan College University of Delhi at online during 26/04/2020 to 06/05/2020.
- College level Workshop on "Internal Quality Assurance Cell" sponsored by Bishop Heber College organized by Bishop Heber College at Bishop Heber College during 10/03/2018 to 10/03/2018.
- 6. College level Orientation on "Research Orientation Programme for Aspirants in Materials Characterization for Device Applications" sponsored by Bishop Heber College organized by PG & Research Department of Physics at Bishop Heber College during 16/02/2018 to 17/02/2018.
- College level Workshop on "Faculty Improvement Programme on Experimental Physics" sponsored by DBT Sponsored under Star College Scheme organized by Bishop Heber College at Bishop Heber College during 12/02/2018 to 13/02/2018.
- National level Conference on "Chennai Nanogathering 2017" sponsored by National Centre for Nanoscience and Nanotechnology organized by National Centre for Nanoscience and Nanotechnology at University of Madras Guindy Campus Chennai 600 023 during 07/02/2017 to 08/02/2017.
- 9. College level Workshop on "Curriculam Design and Evaluation Techniques" sponsored by DST-FIST & DBT-STAR College organized by Bishop Heber College at Bishop Heber College during 21/11/2016 to 22/11/2016.
- National level Orientation on "Acadamic Counsellors of BSC Physics / CPLT Programme" sponsored by IGNOU organized by IGNOU at Kochi during 11/11/2016 to 12/11/2016.
- 11. College level Seminar on "*Faculty Enrichment Programme*" sponsored by IQAC organized by IQAC at Bishop Heber College during 18/02/2016 to 19/02/2016.
- 12. Regional level Workshop on "Second HANDS-ON EXPERIMENTAL WORKSHOP ON CHARACTERIZATION TECHNIQUES" sponsored by PSN COLLEGE OF ENGINEERING TECHNOLOGY organized by PSN COLLEGE OF ENGINEERING TECHNOLOGY at Tirunelveli during 08/10/2015 to 09/10/2015.
- 13. Regional level Workshop on "OPTIMIZING RESEARCH TOOLS AND TECHNIQUES" sponsored by PG & Research Department of Library and Information Science and Research & Developments Cell organized by PG & Research Department of Library and Information Science and Research & Developments Cell at Bishop Heber College during 22/08/2015 to 22/08/2015.
- <sup>14.</sup> National level Conference on "*NCMST2015*" sponsored by IIST Kerala organized by IIST Kerala at Department of Chemistry during 06/07/2015 to 08/07/2015.

- <sup>15.</sup> National level Seminar on "*RAMS-2015*" sponsored by UGC organized by Department of Physics, PERIYAR EVR College at Trichy during 11/02/2015 to 11/02/2015.
- 16. International level Workshop on "INTERNATIONAL WORKSHOP ON ADVANCED MATERIALS" sponsored by School of Physics Alagappa University organized by School of Physics Alagappa University at School of Physics during 20/03/2014 to 22/03/2014.
- <sup>17.</sup> National level Workshop on "*nwct-2*" sponsored by School of Physics Alagappa University organized by School of Physics Alagappa University at School of Physics during 21/03/2013 to 23/03/2013.

## **Research Papers Presented**

- 4

- 1. "1" in the Select conference on sponsored by , organized by at during 04/03/2019 to 12/03/2019.
- 2. "Ionic Conductivity Enhancement of Polymer Electrolytes by Adding Cubic Pervoskite Structured BaTiO3 Ceramic Fillers" in the National conference on Materials & Technologies for Energy Conversion and Storage sponsored by , organized by BARC Mumbai in association with MRSI, Mumbai Chapter at Mumbai during 26/09/2018 to 29/09/2018.
- "Preparation of TiO2 Nanopowder Via Surfactant Assisted Sol-Gel Route" in the National conference on Materials Science and Technology sponsored by , organized by Department of Chemistry Indian Institute of Space Science and Technology at Kerala during 06/07/2015 to 08/07/2015.
- 4. "Electrochemical Studies on PVAc Based Solid Polymer Electrolytes for Li ion battery Applications" in the Select conference on International Conference on Nanotechnology 2015 sponsored by , organized by Department of Chemicial Engineering Haldia Institute of Technology West Bengal at west Bengal during 19/02/2015 to 22/02/2015.

NISI DOMINUS FRUSTRA

- 1. "FeTiO3 Perovskite Nanoparticles for Efficient Electrochemical Water Splitting" published in Catalysts (PEER REVIEW) Vol. 11, Issue No. 9, January 2021 ISSN: ---.
- 2. "Visible light sensitive hexagonal boron nitride (hBN) decorated Fe2O3 photocatalyst for the degradation of methylene blue" published in J. Mater. Sci. Mater. Electron. (PEER REVIEW) Vol. 32, Issue No., January 2020 ISSN: ---.
- 3. "Investigation of Antimicrobial activity of CTAB assisted hydrothermally derived Nano BaTiO3" published in Material Research Express (PEER REVIEW) Vol. 6, Issue No., November 2018 ISSN: .2053-1591.
- 4. "Effect of Ni2+ doping on chemocatalytic and supercapacitor performance of biosynthesized nanostructured CuO" published in Journal of Materials Science: Materials in Electronics (PEER REVIEW) Vol. 29, Issue No., October 2018 ISSN: ----
- 5. "Effect of Ni2+ doping on chemocatalytic and supercapacitor performance of biosynthesized nanostructured CuO" published in Journal of Materials Science: Materials in Electronics (PEER REVIEW) Vol. 29, Issue No., October 2018 ISSN:---.
- 6. "Influence of Hydrothermally Synthesized Cubic Structured BaTiO3Ceramic Fillers on Ionic Conductivity, Mechanical Integrity and Thermal Behavior of P(VdF-HFP):PVAc based Composite Solid Polymer Electrolytes for Lithium Ion Batteries" published in The Journal of Physical Chemistry C (PEER REVIEW) Vol. 122, Issue No., October 2018 ISSN: ---.
- 7. "Influence of Hydrothermally Synthesized Cubic Structured BaTiO3Ceramic Fillers on Ionic Conductivity, Mechanical Integrity and Thermal Behavior of P(VdF-HFP):PVAc based Composite Solid Polymer Electrolytes for Lithium Ion Batteries" published in THE JOURNAL OF PHYSICAL CHEMISTRY C (SELECT) Vol. 122, Issue No., October 2018 ISSN: 1932-7447.
- 8. "The effects of PVAc on surface morphological and electrochemical performance of P(VdF-HFP) based blend solid polymer electrolytes for lithium ion-battery applications" published in Ionics (PEER REVIEW) Vol., Issue No., August 2018 ISSN: 0947-7047.
- 9. "Musa paradisiaca reduced graphene oxide (BRGO) /MWCNT-Fe3O4 nanocomposite for supercapacitor and photocatalytic applications" published in Mater. Today: Proc. (PEER REVIEW) Vol. 47, Issue No., January 1900 ISSN: ---.

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- 10. "Preparation and characterization of PVA/PAM/NH4SCN polymer film by ultrasound assisted solution casting method for application in electric double layer capacitor" published in lonics (PEER REVIEW) Vol. 26, Issue No., January 1900 ISSN: ---.
- 11. "Thermally Tuneable Conductivity and Impedance Spectroscopic studies of self-sustained high-temperature synthesized nano Ce1-xGdxO2 Solid solution" published in Ionics (PEER REVIEW) Vol. 27, Issue No., January 1900 ISSN:---.

- 12. "Preparation and characterization of PVA/PAM/NH4SCN polymer film by ultrasound assisted solution casting method for application in electric double layer capacitor" published in Ionics (PEER REVIEW) Vol., Issue No., January 1900 ISSN: ---.
- 13. "Fabrication of BaTiO 3 ceramic filler incorporated PVC-PEMA based blend nanocomposite gel polymer electrolytes for Li ion battery applications" published in Journal of Materials Science: Materials in Electronics (PEER REVIEW) Vol., Issue No., January 1900 ISSN: ---.
- 14. "High electrochemical performance of nano TiO2 ceramic filler incorporated PVC-PEMA composite gel polymer electrolyte for Liion battery applications" published in Materials Research Express (PEER REVIEW) Vol., Issue No., January 1900 ISSN: ---.
- 15. "Low cost electrochemical composite material of paper cup waste carbon (P-carbon) and Fluorescein for supercapacitor application" published in Mater. Today: Proc. (PEER REVIEW) Vol. 47, Issue No., January 1900 ISSN: ---.
- 17. "Titanium dioxide nano-ceramic filler in solid polymer electrolytes: Strategy towards suppressed dendrite formation and enhanced electrochemical performance for safe lithium ion batteries" published in J. Alloys Compd (PEER REVIEW) Vol. 882, Issue No., January 1900 ISSN: ---.
- 18. "Grape Seed Extract Assisted Synthesis of Dual Functional Anatase TiO Decorated Reduced Graphene Oxide Composite for Supercapacitor Electrode Material and Visible Light Photocatalytic Degradation of Bromophenol Blue Dye" published in (SELECT) Vol., Issue No., January 1900 ISSN: ---.

## Conferences / Workshops / Seminars Organised

1. National level Workshop Entitled "Recent Advanced in Materials for Multidisciplinary Applications" at Trichy, sponsored by BHC, during 30/03/2021 to 31/03/2021.

#### RESEARCH PROJECTS - 2

 Minor project entitled "DESIGH OF NANOCOMPOSITE SOLID POLYMER ELECTROLYTES FOR Li ion BATTERY APPLICATION" (PRINCIPAL INVESTIGATOR), Sponsored by UGC, during 01/01/1900 to [Completed].

## TRAINING PROGRAMME - 1

# NATIONAL level ORIENTATION on "Acadamic Counsellors of BSC Physics / CPLT Programme" Sponsored by , Organized by IGNOU Regional Centre Kochi at Kochi during 11/11/2016 - 12/11/2016. - 1

**1.** College level Invited Lectures on **"Faculty Developvement Programme"** at Cauvery College For Women Trichy 620 018, 01/01/1900.



7