Harikrishnan M P

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Google scholar link: https://scholar.google.com/citations?user=r18961MAAAAJ&hl=en&oi=sra.

# C:\Users\Hari\Downloads\Images\4.jpgPERSONAL PROFILE

Date of birth : 26th October 1991 Gender : Male

Marital Status : Single Father’s Name : Prakasan M.K

Mother’s Name : Nirmala Devi B Nationality : Indian

Religion : Hindu

# EDUCATION

**University of Kerala** Kariavattom Campus, Thiruvananthapuram

*M.Sc. Physics* (Post Graduation) July 2012-July 2014

*Passed with Distinction (84%)*

**University of Kerala** St. Michael’s College, Cherthala

*B.Sc. Physics* (Under Graduation) June 2009 - June 2012

*Passed with Distinction (95.40%)*

**Board of Higher Secondary Examinations** A B Vilasam Higher Secondary School, Alappuzha

*HSE* (12th standard) June 2007-May 2009

*Passed with 87% percentile*

**General Education Department** A B Vilasam Higher Secondary School, Alappuzha

*SSLC* (10th standard) April 2007

*Passed with A grade (81%)*

# RESEARCH EXPERIENCE

**National Institute of Technology Tiruchirappalli**

*DST-SERB Project 13th September 2017-15th March 2020*

Topic: “*Fabrication of Lanthanum based perovskite oxides and its composites for energy storage applications” under the guidance of Dr. A. Chandra Bose, National Institute of Technology, Tiruchirappalli, India.*

* Nanostructured CeNiO3, LaNiO3, LaCoO3 and LaFeO3 are prepared via various synthesis method.
* Electrochemical characterization via SP-200 workstation.
* La- based perovskite supercapacitor energy storage devices fabricated.
* Working in perovskite oxides, transition metal oxides and sulfides.
* Solid-state device fabrication for supercapattery applications.

# RESEARCH EXPERIENCE cntd.

**Kerala University** Kariavattom Campus, Thiruvananthapuram

*Master’s Degree Project* December 2013- April 2014 Topic: *Synthesis and Characterization of nanostructured ZnO under Dr. V. Biju, Assistant Professor*.

* Nanostructured ZnO prepared via polyol precipitation method.
* Structural and UV characterization by sophisticated equipments.
* Precise lattice parameter, wide band gap of the material and stress-strain analysis by W-H plots

**Kerala University** St. Michael’s College, Cherthala

*Bachelor’s Degree Project* November 2011-February 2012 Topic: *Automatic LED street lights for energy consumption under Dr. P. A. Varghese, Professor*

* + Project work has been carried out at the advanced electronics laboratory of Physics Department, St. Michael’s College, Cherthala.

# TEACHING EXPERIENCE

**APJ Abdul Kalam Technological University** College of Engineering and management, Punnapra

*Assistant Professor (Ad-hoc)* February 2017 - September 2017

* + Worked as Physics teacher in Science Department on temporary basis
	+ Taught graduate students in Engineering of all branches
	+ Serviced in student placement cell, Valuation Chief in paper valuation unit.
	+ Productive assignments and Physics laboratory instrumental design for experimental motivation to students.

**Kerala University** St. Michael’s College, Cherthala

*Assistant professor (Contract)* June 2016 –November 2016

* + Worked as assistant professor in the Department of Physics.
	+ Taught Physics and Electronics for undergraduate students
	+ Skill assistant in undergraduate practical physics laboratory and advanced electronics laboratory in Department of Physics.

# TECHNICAL SKILLS

* + Windows and Linux
	+ Programming Languages: C++, Visual basic, Python
	+ MS Office and graphics

# INSTRUMENTATION

* + XRD operation (Ultima III Rigaku)
	+ Impedance Analyzer ( Solartron 1296 Dielectric Interface)
	+ Electrochemical Workstation (SP-150 and SP-200)

# LANGUAGES KNOWN

* + English, Malayalam and Hindi, Tamil.

# ACADEMIC ACHIEVEMENTS

1. Qualified CSIR NET December 2017
2. Qualified GATE 2017 with AIR 262
3. Secured 100 percentage in Mathematics during Under graduation.
4. Active participation in cultural activities and sports at school and college level.

# LIST OF PUBLICATIONS

* 1. **M.P. Harikrishnan** and A.C. Bose, Porous CeNiO3 with enhanced electrochemical performance and prolonged cycle life (> 50000 cycles) via lemon-assisted sol-gel auto combustion method, New Journal of Chemistry. (Accepted July 2022)
	2. **M.P. Harikrishnan**, A.J.C. Mary, and A.C. Bose, Electrochemical performance of ANiO3 (A= La, Ce) perovskite oxide material and its device performance for supercapattery application, Electrochimica Acta, 362, p.137095 December (2020).
	3. A.J.C. Mary, S.S. Shalini, R. Balamurugan, **M.P. Harikrishnan**, and A.C. Bose, *Supercapacitor and non-enzymatic biosensor application of an Mn2O3/NiCo2O4 composite material*, New Journal of Chemistry, 44(26), pp.11316-11323 June (2020).
	4. **M.P. Harikrishnan** and A.C. Bose, *Perovskite oxide LaCoO3 electrode as high performance pseudocapacitor,* AIP Conference Proceedings (Vol. 2082, No. 1, p. 060001). AIP Publishing March (2019).
	5. **M.P. Harikrishnan** and A.C. Bose, *LaNiO3 perovskite oxides by co-precipitation method as electrode for high performance supercapacitor*, AIP Conference Proceedings (Vol. 2115, No. 1,

p. 030129). AIP Publishing July (2019).

* 1. **M.P. Harikrishnan** and A.C. Bose, *Co-precipitation route for synthesizing CeNiO3 and its application as excellent pseudocapacitor*, AIP Conference Proceedings (Vol. 2265, No. 1,

p. 030631). AIP Publishing November (2020).

# LIST OF CONFERENCE AND WORKSHOPS

1. LaNiO3 Perovskite Oxides By Co-precipitation Method As Electrode For High Performance Supercapacitor, **M.P Harikrishnan** and A. Chandra Bose, 63rd DAE Solid State Physics Symposium, Guru jambheswar University, Hisar, Haryana during December 18-22, 2018.
2. Perovskite Oxide LaCoO3 Electrode as High Performance Pseudocapacitor, **M.P Harikrishnan** and A. Chandra Bose, ICONMAT-2019, 3rd International Conference on Optoelectronics and Nano materials For Advanced Technology, Cochin University of Science and Technology, Kochi, Kerala during January 2-5, 2019.
3. Preparation of Lanthanum Ferrite via Co-precipitation Method for High Performance Pseudocapacitor,

**M.P Harikrishnan** and A. Chandra Bose, ICONN 2019, 5th International Conference on Nanoscience and Nanotechnology, SRM University, Chennai, Tamilnadu during January 28-30, 2019.

1. Co-precipitation Route For Synthesizing CeNiO3 And Its Application As Excellent Pseudocapacitor, **M.P Harikrishnan** and A. Chandra Bose, 64th DAE Solid State Physics Symposium, IIT Jodhpur, Rajasthan during December 18-22, 2019.
2. A Facile Hydrothermal Synthesis of CeNiO3 Perovskite Oxides for Supercapattery Applications, **M.P Harikrishnan** and A. Chandra Bose, International conference on novel engineering materials for biomedical, energy, environmenta, sensing and other applications-2021 (ICON-BEES’ 21), NIT Tiruchirappalli-15, Tamilnadu during March 11-13, 2021.
3. Participated in “Best article presentation award” on International Conference on Solution Grown Crystals and Their Useful Applications SGCA 21, SSN Research Centre, SSN Institutions (Autonomous)

Chennai-603110, Tamil Nadu, India during September 13-15, 2021.

# NAME AND ADDRESS OF REFEREES

1. **Dr. A. Chandra Bose**

Professor

Department of Physics

National Institute Of Technology, Tiruchirappalli

Tamilnadu-620015

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1. **Dr. Biju V**

Associate Professor

Centre for Nanoscience and Nanotechnology, University of Kerala,

Kariavattom, Thiruvananthapuram-695581

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1. **Dr. Subodh. G**

Assistant Professor

Department of Physics

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# DECLARATION

I hereby declare that all the information furnished above is correct and genuine to the best of my knowledge and belief.



Alappuzha

06-07-2022

 Harikrishnan M.P