

## RESUME



Name : Dr. Arockiasamy Ajay Praveenkumar,  
Address : Faculty in Physics,  
DMI – St Eugene University,  
Chibambo, Lusaka,  
Zambia, E.mail:ajaytenoul@gmail.com  
Contact No: +260 957120637, +91 9629353541

### **Career Objectives**

To be associated with a firm, this provides career development opportunities and contributes in its progress through my knowledge and skill.

### **Academic Qualifications**

Degree	Institution	University / Board	Year of passing	Marks (%)
Ph.d (Physics)	Noorul Islam Centre for Higher Education, Kumaracoil, Nagarcoil.	Noorul Islam University. Kumaracoil, Nagarcoil.	2018	NA
M.Phil (Physics)	Manonmaniam Sundaranar University. Tirunelveli.	Manonmaniam Sundaranar University. Tirunelveli.	2014	70
M.Sc (Physics)	St.Xavier's college, Palayamkottai.	Manonmaniam Sundaranar University. Tirunelveli.	2013	66.21
B.Ed (Physical Science)	Rajalakshmi College of Education, Tuticorin.	Tamilnadu Teacher Education University.	2011	79
B.Sc (Physics)	St.Xavier's college, Palayamkottai.	Manonmaniam Sundaranar University. Tirunelveli.	2010	58.53
HSC	Sri Muthumalaiamman Govt.Hr.Sec.School, Srithondanallur.	TamilNadu State Board	2007	57.67
SSLC	Sri Ganesar Hr.Sec. School, PNK.	TamilNadu State Board	2005	79.4

### **Academic Researches**

- 1) M.Sc. - Physico-Chemical properties of L-Arginine mixed with Sodium Dihydrogen Orthophosphate.
- 2) M.Phil - Antibacterial Activity of a Metal Nano Particle Prepared by Chemical Reduction Method: A Green Synthesis.
- 3) PhD - Investigation of Selected Organic Molecules by Density Functional Approach.

## Area of Interest

- 1) Vibrational Spectroscopy, Computational calculations, Nano, Thin film and crystal growth.

## Computer Knowledge

- 1) MS-Office, Latex, C, C++, VB, Gaussian 09W, Gauss View, VEDA, Gauss Sum, Molekel, Avogadro, Origin.

## Teaching Experiences

- 1) Lecturer in FX Polytechnic College, Tharuvai. (2014 - 2015)
- 2) Noorul Islam Centre for Higher Education, Kumaracoil, Kanyakumari Dist. (2015-2018)
- 3) Faculty in Physics, DMI-St Eugene University, Lusaka, Zambia. (11.05.18 to till)

## Academic Achievements

- 1) Participated five National and five International level Conferences.
- 2) Presented my papers in three National and five International level conferences.
- 3) Participated three workshops.
- 4) Published twelve papers in reputed journals with Scopus Indexed and high Impact factor.

## Personal Profile

**Nationality** : Indian  
**Gender** : Male  
**Date of Birth** : 05-04-1990  
**Status** : Unmarried  
**Religion** : Christian  
**Category** : MBC  
**Language Known** : Tamil (Read, Write & Speak)  
English (Read, Write & Speak)  
**Permanent Address** : A. Ajaypraveenkumar,  
S/o, M. Indira Sagaya Rani,  
16, Bharathar West Street,  
Eral - 628801.  
**Passport No** : M5864789 (27/01/2025)

## Reference

- 1) Dr.R.Ganapathi Raman, Assistant Professor, Department of Physics, NICE, Kumaracoil - 629 180, Kanyakumari Dist, Tamil Nadu, India. Email: ganapathiraman83@gmail.com, Mob: +91 9976715576.
- 2) Dr.S.Sebastian, Assistant Professor, Department of Physics, St.Joseph's College of Arts & Science (Autonomous), Cuddalore, Tamilnadu, India. Email: sebastian\_astro@yahoo.com, Mob: +91 9843693193.
- 3) Dr. I. Hubert Joe, Associate Professor, Department of Physics, Mar Ivanios College, Nalanchira, Thiruvananthapuram - 695 015.

- 4) Dr.S.Athimoolam, Head, Department of Physics, University College of Engineering, Nagercoil 629 004, Tamil Nadu, India. Email: athi81s@yahoo.co.in, Mob: 9787100212.

### **Conference Participated**

- 1) National Seminar on Materials and Nano Materials organizes by St.Xavier's College of Arts and Science (Autonomous), Palayamkottai, 13<sup>th</sup> March 2015.
- 2) One Day Seminar on Recent Trends in Physics – 2017 (RTP-2017) Organized by Noorul Islam Centre for Higher Education, Kumaracoil, Thuckalay-629 180, K.K Dist, 10th March 2017.

### **Oral & Poster presentations**

- 1) International Conference on Integration on Innovative Trends in Engineering, Science & Management (NICESM-2016) Organized by Noorul Islam Centre for Higher Education, Kumaracoil, Thuckalay-629 180, K.K Dist from 26<sup>th</sup> to 27<sup>th</sup> February 2016 has presented the paper entitled **“Quantum Chemical Calculations of 3-Methoxybenzonitrile for NLO applications”**
- 2) National Conference on Advanced Materials organized by Nanjil Catholic College of Arts and Science, Kalliyakkavilai-629153, K.K.Dist from 27<sup>th</sup> February 2016 has presented the paper entitled **“Vibrational Spectra, NLO analysis, and HOMO–LUMO studies of 5-Fluoro-2-methylbenzonitrile by density functional method”**
- 3) International Conference on Recent Trends in Materials Science and Applications (ICRTMSA-2016) organized by the PG and Research Department of Physics, Jamal Mohamed College (Autonomous), Thrichirappalli on 29<sup>th</sup> February 2016 has presented the paper entitled **“Geometrical Structure, Vibrational spectra, NLO, NBO, Electronic transitions and Thermodynamic analysis of 5-fluoro-2-methylbenzonitrile by DFT Computation method”**
- 4) National Conference on Global Advances in Materials for Energy, Engineering and Environmental Sciences (GAME3S) organized by Department of Science & Humanities, M. Kumarasamy College of Engineering, Karur-639 113 on March 4<sup>th</sup> 2016 has presented the paper entitled **“Synthesis, spectroscopic (FT-IR, FT-Raman, and UV) and computational studies on 2-Bromo-5-methoxybenzonitrile”**
- 5) International Conference on Integration of STEM Education and Health (ICISEM-16) Organized by Noorul Islam Centre for Higher Education, Kumaracoil, Thuckalay-629

180, K.K Dist from 20<sup>th</sup> to 24<sup>th</sup> June 2016 has presented the paper entitled **“Geometrical Structure, Vibrational Spectra, NLO, NBO and Thermodynamic Analysis of 3-Methoxy 2 benzonitrile”**

- 6) National Conference on Technologically Advanced materials (NCTAM-2016) Organized by Muslim Arts College, Thiruvithancode - 629 174, K.K Dist from 6th September 2016 has presented the paper entitled **“DFT studies on the electronic structures of 2-methoxybenzonitrile dye for Dye-Sensitized Solar Cell”**
- 7) Asian Consortium on Computational Materials Science Theme Meeting on First Principles Analysis & Experiment: Role in Energy Research (ACCMS-TM 2016) Organized by SRM University, Kattankulathur - 603 203, Chennai, India from 22-24th September 2016 has presented the poster entitled **“Vibrational Frequencies, NBO Analysis, NLO Properties, UV-Visible and Homo-Lumo Analysis of 2-Chloro-3-Methoxybenzonitrile with Experimental (FT-IR and FT-Raman) Techniques and Quantum Mechanical Calculations”**
- 8) International Conference on Advances in Materials (AIM 2017) organized by Department of Science & Humanities, M. Kumarasamy College of Engineering, Karur-639 113 on April 7<sup>th</sup> 2017 has Presented the paper entitled **“Spectroscopic Analysis, Electronic, Optical and thermodynamical properties of 2-Amino-5-fluorobenzonitrile by *ab-initio* methods”**

### **Awards and Prizes**

International Conference on Integration of STEM Education and Health (ICISEM-16) Organized by Noorul Islam Centre for Higher Education, Kumaracoil, Thuckalay-629 180, K.K Dist from 20<sup>th</sup> to 24<sup>th</sup> June 2016 **won the best oral presentation** for the paper entitled **“Geometrical Structure, Vibrational Spectra, NLO, NBO and Thermodynamic Analysis of 3-Methoxy 2 benzonitrile”** Special Session: Advances in Applied Sciences 20th & 21st June 2016.

### **Workshop Participated**

- 1) National Workshop on Materials Science and Theoretical Physics (WOMSAT-2015) organizes by St.Joseph’s College of Arts and Science (Autonomous), Cuddalore-1, from 2<sup>nd</sup> to 3<sup>rd</sup> September 2015.

- 2) TOMBO Tutorial Organized by SRM University, Kattankulathur - 603 203, Chennai, India from 21st September 2016.
- 3) Two-Day Workshop On LaTeX Organized by Department Of Mathematics Noorul Islam Centre For Higher Education Noorul Islam University Kumaracoil, Thuckalay-629 180 Tamilnadu, India from 19<sup>th</sup> & 20<sup>th</sup> of December 2016.

### **Published Papers**

- 1) **Arockiasamy Ajaypraveenkumar**, Johnson Henry, Kannusamy Mohanraj, Ganesan Sivakumar, Sankaran Umamaheswari, Characterisation, Luminescence and Antibacterial Properties of Stable AgNPs Synthesised from AgCl by Precipitation Method, *Journal of Materials Science & Technology*, Volume 31, Issue 11, 2015, 1125–1132. (SCI Journal)
- 2) Johnson Henry, **Arockiasamy Ajaypraveenkumar**, Ganesan Sivakumar, Kannusamy Mohanraj, A new approach for deposition of silver film from AgCl through successive ionic layer adsorption and reaction technique, *Journal of Central South University*, Volume 24, 2017, 2793-2798. (SCI Journal)
- 3) Shajikumar, **Arockiasamy Ajaypraveenkumar** and R. Ganapathi Raman, Molecular Optimized Structure, NLO Applications Like Frequency Doubling and SHG, Fock Matrix of NBO Analysis, HOMO and LUMO Frontier Orbital Energies Analysis, Different Thermo chemistry Properties of 4-Fluoro-3-Methylbenzotrile Based on Quantum Chemical Calculations, *Journal of Chemical and Pharmaceutical Sciences*, Volume 9, Issue 4, 2016, 2063-2072. (Scopus Indexed)
- 4) **Arockiasamy Ajaypraveenkumar**, R Ganapathi Raman, Vibrational Frequencies, NBO Analysis, NLO Properties, UV-Visible and Homo-Lumo Analysis of 2-Chloro-3-Methoxybenzotrile with Experimental (FT-IR and FT-Raman) Techniques and Quantum Mechanical Calculations, *Journal of Chemical and Pharmaceutical Sciences*, special Issue I, ISSN: 0974-2115, 2017, 27-41. (Scopus Indexed)
- 5) **Arockiasamy Ajaypraveenkumar**, R Ganapathi Raman, S. Sebastian, Geometrical Structure, Vibrational Spectra, NLO, NBO, Electronic Transitions and Thermo dynamical Analysis of 5-Fluoro-2-Methylbenzotrile by DFT Computational Method, *Recent Trends in Materials Science and Applications*, DOI: 10.1007/978-3-319-44890-9-54, SPPHY, Volume 189, 2017, 629-654.

- 6) **Arockiasamy Ajaypraveenkumar**, R Ganapathi Raman, Experimental and theoretical spectroscopic investigations of 2-Bromo-4-methylbenzotrile, *Journal of Chemical and Pharmaceutical Sciences*, 2017, Volume: 10, Issue: 3, 2017, 1309-1316. (Scopus Indexed)
- 7) **Arockiasamy Ajaypraveenkumar**, R Ganapathi Raman, Synthesis, spectroscopic (FT-IR, FT-Raman and UV) and computational studies on 2-Bromo-5-methoxybenzotrile, *Journal of Chemical and Pharmaceutical Sciences*, 2017, Volume: 10, Issue: 3, 1-9. (Scopus Indexed)
- 8) **A. Ajaypraveenkumar**, S. Shajikumar, and R. Ganapathi Raman, Experimental and theoretical spectroscopic investigations of 4-Bromo-3-methylbenzotrile, *Journal of Chemical and Pharmaceutical Sciences*, 2017, Volume 10, Issue 4, 68-74.
- 9) **Arockiasamy Ajaypraveenkumar**, R Ganapathi Raman, Spectroscopic Analysis, Electronic, Optical and Thermodynamical Properties of 2-amino-5-fluorobenzotrile by Ab Initio Methods, *Der Pharma Chemica*, 2017, 9(15), 56-67.
- 10) **Arockiasamy Ajaypraveenkumar**, R Ganapathi Raman, Experimental, Theoretical Spectroscopic and Second Harmonic Generations Studies of 5-Fluoro-2-Methyl Benzotrile, *Oriental Journal of Chemistry*, 2017, Volume 33 (5), 1-9.
- 11) S. Shajikumar, **A. Ajaypraveenkumar** and R. Ganapathi Raman, Theoretical Investigations And Second Harmonic Generations Studies Of 2-Amino-5-Nitrobenzophenone, *Journal of Chemical and Pharmaceutical Sciences*, Volume 10, Issue 4, 75-83.
- 12) **Arockiasamy Ajaypraveenkumar**, R Ganapathi Raman, Spectroscopic and Second Harmonic Generations Studies of 5-Bromo-2-Methoxybenzotrile by DFT, *Oriental Journal of Chemistry*, Volume 33, Issue 6, 2017, 3077-3085.

**Declaration:**

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

**Place: Chibambo,**

**Date:**

**Yours Faithfully,**



**(A.AJAY PRAVEENKUMAR)**