

Curriculum Vitae

Personal Data

Name : **Lt.Dr. M.M.ARMSTRONG ARASU, Ph.D.**

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Tamil Nadu.
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Date of Birth : 19.01.1972

Profile

A dynamic, resourceful, diligent, young man aspiring to make a mark as a top preceptor.

Academic Qualifications

Degree	year of passing/ completing	University	Institution
Ph.D. (Physics)	2011	Bharathidasan University	St.Joseph's college (Autonomous),Trichy-2.
M.Phil. (Physics)	2000	Bharathidasan University	St.Joseph's college (Autonomous),Trichy-2.
M.Sc. (Physics)	1997	Bharathidasan University	St.Joseph's college (Autonomous), Trichy-2.
B.Sc. (Physics)	1994	Madurai Kamaraj University	Arul Anandar College (Autonomous), Madurai.

Specialization : Ultrasonics

Professional Experience

<i>Period</i>	<i>Position</i>	<i>Institution</i>	<i>Subject / Class Taught</i>
June 1999 - present	Assistant Professor	St. Joseph's College (Autonomous) Trichy-2	<u>M.Sc.</u> (Physics) (i) Condensed matter Physics (ii) Communication Physics (iii) Statistical Mechanics (iv) Classical Mechanics (v) Nuclear Particle And Astrophysics (vi) Physics for competitive Exams <u>B.Sc</u> (Physics) (i) Properties of Matter & Sound (ii) Electricity & Magnetism (iii) Heat & Thermodynamics (iv) Optics (v) Spectroscopy (vi) Atomic Solid state and Nuclear Physics (vii) Environmental Studies (viii) Computer Literacy <u>B.Sc</u> (Mathematics, Chemistry, Computer science & Electronics) (i) Allied Physics I & II (ii) Applied Physics I & II <u>Skill based Electives</u> (i) Instrumentation (ii) Medical Physics (iii) Photography (iv) Electrical Wiring (v) Cell phone Servicing
August 1997- May 1999	Computer Programmer	St. Joseph's College (Autonomous)	Controller of Examinations
May 1996 – June 1997	Tutor	St. Mary's Tuition Centre, Ahmedabad	High School

Co –curricular Activities

a) Conference /Seminars/ Workshops/Orientation Programmes Attended

1. International Conference on Laser and their applications, 01 - 04 March 2000, St. Joseph's College (Autonomous), Tiruchirappali-2.
2. International Conference on Nano Technology & Ultrasonics and INDO-US workshop on Nanosonics and Ultrasonics 12th to 14th January 2011, St. Joseph's College (Autonomous), Tiruchirappali-2.
3. Seminar on 'Recent advances of Laser in Scientific & Industrial Applications', 6th and 7th September 1999, St. Joseph's College (Autonomous), Tiruchirappali-2.
4. National Symposium On Acoustics (NSA 2000), 22nd & 23rd November 2000, St. Joseph's College (Autonomous) Tiruchirappali-2.
5. Seminar on 'Recent Trends in Thin Film Technology', 14th of February 2003, St. Joseph's College (Autonomous), Tiruchirappali-2.
6. Orientation Programme for Lecturers, 27th to 29th May 2004, Dr. Ambedkar Cultural Academy, Madurai.
7. National Seminar on 'Laser in Technological and Biomedical Applications', 27th and 28th January 2005, St. Joseph's College (Autonomous), Tiruchirappali-2.
8. National Seminar on 'Digitalised Information Exchange for Quality Sustenance and Enhancement among Accredited Institutions', 3rd and 4th March 2005, St. Joseph's College (Autonomous), Tiruchirappali-2.
9. Intensive Residential Course on 'The Effect of Globalization & Cultural Nationalism on the Marginalized People', 25th to 29th May 2007, Indian Social Institute, Bangalore.
10. Workshop on 'Nuclear Energy for National Development and Environment Sustainability', 19 to 21 July, 2007, Loyola College, Chennai.
11. National Workshop on 'Applications of Radiation and Radio Isotope', 15th February 2008, St. Joseph's College (Autonomous), Tiruchirappali-2.
12. Special Programme Organized for the Science and Engineering Faculty with Experts from Board of Research in Nuclear Sciences, Department of Atomic Energy', 13th February 2008, Lady Doak College, Madurai.
13. National Conference on 'Quality Enhancement and Sustenance in Higher Education Institutions through Six Sigma Quality Strategy', 23rd and 24th October 2008, St. Joseph's College (Autonomous), Tiruchirappali-2.
14. National Conference on 'Higher Education and National Development : The Challenge of Expansion , Quality and Inclusion', 30th and 31st January 2009, St. Joseph's College (Autonomous), Tiruchirappali-2.
15. Intensive Residential Course on 'Re-Discovery: Dr. Ambedkar, Periyar and Phula', 22nd - 26th May 2009, Indian Social Institute ,Bangalore.

16. National Conference on 'The Role of ICT in Higher Education: Quality, Accessibility and Security', 29th and 30th January 2010, St. Joseph's College (Autonomous), Tiruchirappali-2.
17. Seminar on 'Recent Advances in Spectroscopic Techniques', 7th September 2010, Bishop Heber College (Autonomous), Tiruchirappali-17.
18. Workshop on Physical Ultrasonics, 27th February 1999, at St. Joseph's College (Autonomous) Tiruchirappali-2.
19. Workshop on 'Ultrasonics', 29th October 2004, St. Joseph's College (Autonomous), Tiruchirappali-2.
20. Workshop on 'Inter-personal Skills for Staff Members', St. Joseph's College (Autonomous), Tiruchirappali-2.
21. National Symposium on Acoustics (NSA 2011), Bundelkhand University, Jhansi (U.P)
22. Pre commission course on NCC at OTA, Kamptee, Nagpur, Sep- Dec 2014.
23. National Symposium on Acoustics (NSA 2015). National Institute of Oceanography, Dona Paula, Goa. Sep-2015
24. Staff orientation course at Bharathidasan University, 19th May to 18th June 2016.
25. International Symposium on Acoustical for Engineering Application (NSA -2016) on 17th -19th November, 2016 at KIIT college of engineering Gurugram, Hariyana.
26. One day International seminar on "material Science and technology (ISMST-2017) on 4th August 2017 at Mother Teresa women's university, Kodaikanal.
27. International Conference on Advanced Materials on 14.12.2017 at St. Joseph's College (Autonomous) Tiruchirappali-2.

b) Papers Presented at International/National Conferences

1. 'Derivation of a new equation to determine the internal pressure of the liquids in terms of non-linear acoustical parameter and experimental conformation' (NSA2005), NAL, Bangalore-37.
2. 'Ultrasonic investigation of some binary and ternary mixtures by having propanol as common component', National Symposium on ultrasonics (NSU XVI), Cochin, (2008).
3. 'Evaluation of thermo dynamical and excess parameters of some binary and ternary mixtures by having propanol as common component', NSA2008, NSTL, Visakhapatnam.

4. 'Study of Thermodynamical and Excess parameters of binary and ternary mixtures by having Propanol as common component', NSA2009, held at Research Centre Imarat, DRDO, Hyderabad.
5. 'Evaluation of Thermo Acoustical parameters of some binary mixtures from volume expansivity data', NSA2009, Research Centre Imarat, DRDO, Hyderabad,.
6. 'Evaluation of Thermo Acoustical parameters of some binary mixtures from volume expansivity data', Eighteenth National Symposium on Ultrasonics (NSU-XVIII), VIT, Vellore.
7. 'Study of Thermo dynamical and Excess parameters of some binary and ternary mixtures by having Ethyl acetate as common component' Eighteenth National Symposium on Ultrasonics (NSU-XVIII), VIT University, Vellore.
8. 'Acoustical Study on Thermo dynamical and Excess parameters of binary and ternary mixtures', National Symposium on Acoustics (NSA 2010) , Rishikesk (U.P).
9. 'Study on Thermo-Acoustical parameters of some binary mixtures from volume expansivity data', National Symposium on Acoustics (NSA 2010), Rishikesk (U.P).
10. 'Acoustical Study on Thermo dynamical and Excess parameters of ternary mixtures at 308.15K(Methyl acetate +Propanol +Water)', International Conference on Nano Technology & Ultrasonics (ICNU2011),SJC, Trichy-2
11. 'Ultrasonic Study on Thermo dynamical and Excess parameters of binary and ternary mixture', National Symposium on Acoustics (NSA 2011),Bundelkhand University, Jhansi(U.P)
12. "Study on Thermo dynamical and Excess parameters of binary liquid mixtures', National Symposium on Acoustics (NSA 2015).National institute of Oceanography,Dono Paula,Goa.
13. Acoustical Study on Thermo dynamical and Excess parameters of ternary mixtures', National Symposium on Acoustics (NSA 2015).National institute of Oceanography,Dono Paula,Goa.
14. Acoustical Study on Thermo dynamical parameters of ternary mixtures International Symposium on Acoustical for Engineering Application (NSA -2016) on 17th -19th November,2016 at KIIT college of engineering Gurugram, Hariyana.

15. 'Thermo-Acoustical Molecular Interaction Studies in Binary Liquid Mixtures by Ultrasonic Velocity Measurement (Diethylamine + n-Butanol) At 303.15K One day International seminar on "material Science and technology (ISMST-2017) On 4th August 2017 at Mother Teresa women's university, Kodaikanal.
16. Investigation of Molecular Interaction in Binary Mixtures of Anisole with methyl Isobutyl ketone At different Temperature on International Conference on Advanced Materials on 14.12.2017 at St. Joseph's College (Autonomous) Tiruchirappali-2.
17. Ultrasonic Viscometer studies on molecular Interaction in Binary Liquid mixtures of propylene Glycol and Dimethyl Sulphoxide at different Temperature on International Conference on Advanced Materials on 14.12.2017 at St. Joseph's College (Autonomous) Tiruchirappali-2.
18. One-pot synthesis of MPA capped Cd Te Quantum Dots for Non-Enzymatic Hydrogen Peroxide Bio sensor Application on International Conference on Advanced Materials on 14.12.2017 at St. Joseph's College (Autonomous) Tiruchirappali-2.

c) Publications

1. 'Derivation of a new equation to determine the internal pressure of the liquids in terms of non-linear acoustical parameter and experimental conformation'. Journal of the Acoustical Society of India, Vol. 33, (2005), pp. 268 – 271.
2. 'Evaluation of thermo dynamical and excess parameters of some binary and ternary mixtures by having propanol as common component'. Journal of the Acoustical Society of India, Vol. 35, No. 2, (2008), pp. 86 – 93.
3. 'Study of Thermo dynamical and Excess parameters of binary and ternary mixtures by having Propanol as common component'. Journal of the Acoustical Society of India, Vol. 37, No. 3, (2010), pp. 105 - 111.
4. 'Evaluation of Thermo Acoustical parameters of some binary mixtures from volume expansivity data', . Journal of the Acoustical Society of India, Vol. 37, No. 4, pp. 161 – 168.

5. 'Acoustical Study on Thermo dynamical and Excess parameters of binary and ternary mixtures' ... Journal of the Acoustical Society of India, Vol. 38, No. 4, pp. 184 – 189.
6. 'Ultrasonic Studies on Molecular interaction in Ternary liquid mixtures of n-n dimethyl formamide, methyl benzoate, and cyclohexane At 303K, 313K, and 323K at International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056 Volume: 04 Special Issue: 09 | Sep -2017 www.irjet.net p-ISSN: 2395-0072. © 2017, IRJET | Impact Factor value: 5.181 | ISO 9001:2008 Certified Journal | Page 231
7. 'Thermo-Acoustical Molecular Interaction Studies in Binary Liquid Mixtures by Ultrasonic Velocity Measurement (Diethylamine + n-Butanol) At 303.15K'' International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056 Volume: 04 Special Issue: 09 | Sep -2017 www.irjet.net p-ISSN: 2395-0072 © 2017, IRJET | Impact Factor value: 5.181 | ISO 9001:2008 Certified Journal | Page 42
8. 'Acoustical and Thermodynamical Studies in Ternary Mixtures of Ethylene Glycol and Glycerol with Octanol AT 303.15K' International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056 Volume: 04 Special Issue: 09 | Sep -2017 www.irjet.net p-ISSN: 2395-0072 © 2017, IRJET | Impact Factor value: 5.181 | ISO 9001:2008 Certified Journal | Page 36
9. 'Investigation of Molecular Interaction in Binary Mixtures of Anisole with methyl Isobutyl ketone At different Temperature'. International Journal of scientific research in Science and technology (IJSRST)..-pg.no 97-102, e-ISSN: 2395-0056
10. 'Ultrasonic Viscometer studies on molecular Interaction in Binary Liquid mixtures of propylene Glycol and Dimethyl Sulphoxide at different Temperature'. International Journal of scientific research in Science and technology (IJSRST)..-pg.no 89-96, e-ISSN: 2395-0056
11. 'One- pot synthesis of MPA capped Cd Te Quantum Dots for Non Enzymatic Hydrogen Peroxide Bio sensor Application'. International Journal of scientific research in Science and technology (IJSRST)..-pg.no 129-134 e-ISSN: 2395-0056

d) Best Paper Award

Received the Best Research Paper award from “**Madras –India Regional Chapter of the Acoustical Society of America**” , NSA, 26-28 November 2009, Research Centre Imarat, DRDO, Hyderabad, A.P.

e) Examinership & Question Paper Settership

- 1) Examiner, Central Valuation, UG (Physics), Bharathidasan University since November 2003.
- 2) Examiner, UG (Physics) Theory & Practicals, St.Joseph's College (Autonomous), Tiruchirappali-2, since April 2000.
- 3) Question Paper Setter, UG,PG & M.Phil., (Physics), St.Joseph's College (Autonomous), Tiruchirappali-2, since April 2000.
- 4) Examiner, UG (Physics), Holy Cross College(Autonomous), Tiruchirappali-2.
- 5) Examiner, UG (Physics) Theory & Practicals, Nehru Memorial College (Autonomous), Puthanampatti.
- 6) Examiner, Bharathidasan University UG (Physics), Practicals, Cauvery College for Women, Tiruchirappali.
- 7) Examiner, Bharathidasan University UG (Physics) Practicals, Srimati Indra Gandhi College, Tiruchirappali.
- 8) Examiner, Bharathidasan University UG (Physics) Practicals, Mahatma Gandhi Arts & Science College, Pudukottai.
- 9) Question Paper Setter, UG (Physics), St.Joseph's College (Autonomous), Tiruchirappali-2.
- 10) Question Paper Setter,UG (Physics), Nehru Memorial College(Autonomous), Puthanampatti.
- 11) Question Paper Setter for UG & PG (Physics), Sarah Tucker College, Tirunelveli-7.
- 12) Question Paper Setter for UG & PG (Physics) Seethalakmi Ramasami College (autonomous) Trichy.
- 13) Question Paper Setter for UG & PG (Physics) Government Arts and science college for women,Putukkottai.
- 14) Question Paper Setter for UG & PG (Physics) Lady Dock College, Madurai.

Extra-curricular Activities

- i) 'B' Certificate holder in **NCC**
- ii) Attended the Annual Training Camp at Dindigul from 27.9.1992 to 08.10.1992
- iii) Attended the National Integration Camp at Vellore from 08.01.1994 to 19.01.1994
- iv) Have completed a Certificate Course in Food and Nutrition.
- v) Have participated in Inter -College Competitions at various Colleges as an undergraduate.
- vi) Have won Prizes in sports at School level.
- vii) Top Scorer at School level.
- viii) Have participated in many cultural events at School and College levels

Administrative Skills

- i) Care taker of of 1COY 2TN(Bn) NCC ARMY WING(INFANTRY)During July 2012 to Sep 2014

- ii) **Company Commander** of 1COY 2TN(Bn) NCC ARMY WING(INFANTRY) Since 16.10.2014
- iii) Staff In- charge, Culturals, Department of Physics, St. Joseph's College, for more than ten years
- iv) Sports Manager, Department of Physics, St. Joseph's College, for more than ten years
- v) Member ,Students' Discipline Committee Since 2013 in St. Joseph's College.
- vi) Secretary , SJC Teaching Staff Association Since August 2017.

Organization Skills

- i) Member, Travel and Accommodation Committee, International and National Conferences held in Department of Physics, St. Joseph's College (Autonomous) Trichy-2, since 1999.
- ii) Organizer, Annual tour for staff and Educational tour for students all over the country, since 1999.

Computer Competency

Completed course in PGDCA at St. Xavier Institute of Computer Science, Ahmedabad, Gujarat.
QBASIC, FOXPRO, C, MS-OFFICE & MS Power Point.

Other Distinctions

- (i) Resource Person since June 2008, *Directorate of Distance Education, Bharathidasan University* , for M.Sc(Physics) :Statistical Mechanics Classical Dynamics and Relativity.
- (ii) Resource person, *Young Scientist Students Programme*, St. Joseph's College, Trichy-2, 2001 & 2002.
- (iii) Acted as a Resource Person for the 'Three- day Special Lectures Programme for P.G. Physics Teachers' from 12th to 14th November 2009 at St. Joseph's College (Autonomous) Tiruchirappali-2.
- (iv) **Assistant Director** of New Hostel, St. Joseph's College (Autonomous) Trichy-2 from January 2000 to May 2003 with 750 inmates.
- (v) Have guided more than **63 M.Sc students., 21 M.Phil. Scholar, guiding 2 Ph.D,**
- (vi) Resource person for national Seminar on Current Trends in Material Science and Nanostructured materials From 23rd & 24th January 2013 at Cauvery College for Women, Trichy -620018 .

Languages

- i) Tamil - Spoken and Written
- ii) English - Spoken and Written
- iii) Hindi –Spoken

(Lt.Dr. M. M. ARMSTRONG ARASU)