

CURRICULUMVITAE

N.VENKATESH BHARATHI

S/O, A. Nagarajan,
160, Harveypatti,
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Madurai.
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E-mail id : venkateshbharathi.n@gmail.com

Date of birth : 07.03.1994
Sex : Male
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Academic Qualifications:

Examination passed	Month & Year of passing	Grade	Name of the University or College Studied
10 th standard	Mar. 2009	First Class	I.G.M.M. Her. Sec. School, Thirunagar, Madurai.
12 th standard	Mar. 2011	First Class	I.G.M.M. Her. Sec. School, Thirunagar, Madurai.
B.Sc., (Physics)	Apr. 2014	First Class	M.T.N. College, Madurai. (Madurai Kamaraj University)
M.Sc., (Physics)	Apr. 2016	First Class	N.M.S.S.V.N. College, Madurai. (Madurai Kamaraj University)
Ph.D., (Physics)	Submitted Jun. 2021	-	N.M.S.S.V.N. College, Madurai. (Madurai Kamaraj University)

Awards:

March 2014 - "The Best Outgoing Student" Award

March 2014 - "Man sans Frontiers" Award

April 2016 - "Ind Rank" in M.Sc., Physics degree examination

Research Interest:

Low temperature crystal growth, Nano powders, Phosphor materials. Growth, their characterization and structure determination.

Research Experience:

PG Project (2015 - 2016)

Title: "Growth and Characterization of ZnO doped Glycine Single Crystal."

Ph.D. (2018 - on going)

Title: "Synthesis and Luminescence Investigation of some Phosphor Materials."

Skills:

Lab management, working with statistical tools, Microsoft Office, C & C++.

Good written and verbal communication with fluency in English and Tamil.

Good verbal communication with fluency in Telugu.

Research Publications:

1. Effect of ZnO and co-doped ZnO additive in the growth, structural, optical and mechanical properties of glycine single crystals, P. Kavitha, **N. Venkatesh Bharathi**, V. Nagarajan, S. Ramaswamy*, *IJAERD*, 2018, Vol. 5.
2. Synthesis and characterization of self-activated Ba₂V₂O₇ nanophosphor: A Potential Material for W-LED Applications, **N. Venkatesh Bharathi**, T. Jeyakumaran, S. Ramaswamy*, S.S. Jayabalakrishnan, *Material Research Express*, 2019, Vol. 6(10). DOI: 10.1088/2053-1591/ab3c1d/meta.
3. Facile synthesis, vibrational, optical and improved luminescence properties analysis of Ca₂KZn₂V₃O₁₂ phosphor, T. Jeyakumaran, **N. Venkatesh Bharathi**, P. Sriramachandran, R. Shanmugavel and S. Ramaswamy*, *Material Research Express*, 2019, Vol. 6(11). DOI: 10.1088/2053-1591/ab51b8/meta.
4. Effect of ZnO with alkali metals as an additive in the growth, structural, optical, electrical and mechanical properties of glycine single crystals,

- P. Kavitha, **N. Venkatesh Bharathi** and S. Ramaswamy*, AIP Conference Proceedings, 2019, 2162, 020046. DOI: 10.1063/1.5130256.
5. Synthesis and characterization of a Eu^{3+} -activated $\text{Ba}_{2-x}\text{V}_2\text{O}_7:x\text{Eu}^{3+}$ phosphor using a hydrothermal method: a potential material for near-UV-WLED applications, **N. Venkatesh Bharathi**, T. Jeyakumaran, S. Ramaswamy*, S. S. Jayabalakrishnan, Luminescence, 2021, Vol. 36(4), 849-859. DOI: 10.1002/bio.4031.
 6. Synthesis and Luminescence Investigation of Eu^{3+} Doped $\text{Ca}_2\text{KZn}_2\text{V}_3\text{O}_{12}$ Phosphors: A Potential Material for WLEDs Applications", T. Jeyakumaran, **N. Venkatesh Bharathi**, P. Sriramachandran, R. Shanmugavel, S. Ramaswamy*, Journal of Inorganic and Organometallic Polymers and Materials, 2021, Vol. 31, 674–682. DOI: 10.1007/s10904-020-01696-2.
 7. Structural, Vibrational, Optical and Improved Photoluminescence Properties of Dy^{3+} Doped $\text{Ca}_2\text{KZn}_2\text{V}_3\text{O}_{12}$ Phosphors, T. Jeyakumaran, **N. Venkatesh Bharathi**, P. Sriramachandran, R. Shanmugavel, S. Ramaswamy*, Journal of Inorganic and Organometallic Polymers and Materials, 2021, Vol. 31, 695–703. DOI: 10.1007/s10904-020-01766-5.
 8. Synthesis and characterization of a novel $\text{Ba}_{2-x}\text{V}_2\text{O}_7:x\text{Dy}^{3+}$ phosphor by hydrothermal method for WLED applications, **N. Venkatesh Bharathi**, T. Jeyakumaran, S. Ramaswamy*, S.S. Jayabalakrishnan, AIP Conference Proceedings, 2021, Vol. 2352(1), 020052, DO: 10.1063/5.0052421.

List of Papers Presented in Conferences / Seminars:

1. P. Kavitha, N. Venkatesh Bharathi, V. Nagarajan, **S. Ramaswamy**, *Effect of ZnO Additive in the Growth, Optical and Mechanical Properties of a Glycine Single Crystals*, 2nd International Conference on Materials and Technology-Synthesis, Processing and Applications (ICMAT-SPA) 2018 held at SRNM College (Autonomous), Sattur, February 20th & 21st 2018.
2. P. Kavitha, N. Venkatesh Bharathi, V. Nagarajan, **S. Ramaswamy**, *Effect of ZnO and co-doped ZnO additive in the growth, structural, optical and mechanical properties of glycine single crystals*, International Conference on Momentous role

of Nanomaterials in Renewable Energy devices (IC MNRE-2018), Alagappa University, Karaikudi, March 1st & 2nd 2018.

3. P. Kavitha, N. Venkatesh Bharathi, V. Nagarajan, **S. Ramaswamy**, *Growth and characterization of ZnO doped and co-doped glycine single a Crystals*, National Seminar on New Materials Research and Nanotechnology (NSNMNRN 2018), The Sethupathy Government Arts College, Ramanathapuram, March 19th & 21st 2018.
4. N. Venkatesh Bharathi, T. Jeyakumaran, P. Kavitha, **S. Ramaswamy**, *Synthesize and characterization of CdS (0 0 2) and ZnS nano particles using hydrothermal method*, 4th National Seminar on Technologically Important Crystalline and Amorphous Solids (TICAS-2018) held at Kalasalingam University, Krishnankovil, March 2nd & 3rd 2018.
5. Venkatesh Bharathi Nagarajan, Jeyakumaran Thavamany, **Ramaswamy Seenivasan**, *Synthesis and Characterization of Self-activated Ba₂V₂O₇ Nano Phosphor: A Potential Material for W-LEDs Applications*, 5th International Conference on Nanoscience and Nanotechnology (**ICONN-2019**) held at SRM University, Chennai, January 28th to 30th 2019.
6. N. Venkatesh Bharathi, T. Jeyakumaran, **S. Ramaswamy**, *Synthesis and characterization of europium doped barium vanadate phosphor for wled applications*, National Conference on Recent Developments in Effective Materials (**REDEEMS '20**) held at Sarah Tucker College, Thirunelveli, February 7th 2020.
7. N. Venkatesh Bharathi, T. Jeyakumaran, **S. Ramaswamy**, *Synthesis, characterization and WLED device fabrication of Eu³⁺ activated Ba₂V₂O₇ phosphor: A potential material for solid state lighting application*, International Conference on Advanced Materials (**ICAM-2020**) held at Arul Anandar College, Karumathur, Madurai, February 11th and 12th 2020.
8. N. Venkatesh Bharathi, T. Jeyakumaran, **S. Ramaswamy**, *Synthesis and characterization of a novel Ba₂V₂O₇:xDy³⁺ by hydrothermal methd for WLED applications*, 5th National e- Conference on Advanced Materials and Radiation Physics (AMRP-2020) held at Sant Longowal Institute of Engineering and Technology, Longowal, Distt. Sangrur-148106 (Punjab), November 9th - 11th, 2020.

Scientific Workshops/Trainings/Conference participations:

1. Participated in the State Level Students' Seminar on "**From Micro to Nano changing world**" organized by the Department of Physics, on 5th October 2011, at Thiagarajar College, Madurai.
2. Participated in the National level Seminar on "**Polymers: Synthesis, Characterization and Applications**" organized by the Department of Physics (Under UGC Autonomy Grant), on 21st & 22nd October 2012, at Mannar Thirumalai Naicker College, Madurai.
3. Participated in the National level Seminar on "**Recent Trends in Physics**" organized by the Department of Physics (Under UGC Autonomy Grant), on 20th February 2013, at Sourashtra College, Madurai.
4. Participated in the State Level Students' Seminar on "**Application of Physics in Biology & Medicine**" organized by the Department of Physics, on 22nd February 2013, at Thiagarajar College, Madurai.
5. Participated in the National Seminar on Materials of Importance "**MATPHY 12**" organized by the Department of Physics in collaboration with National Physical Laboratory, New Delhi, on 13th September 2013, at Mannar Thirumalai Naicker College, Madurai.
6. Participated in the National level Seminar on "**X-Ray Crystallography**" organized by the PG & Research Department of Physics (Under UGC Autonomy Grant), on 14th February 2014, at NMSSVN College, Madurai.
7. Participated in the National level Workshop on "**Computational Physics using Gaussian**" organized by the PG & Research Department of Physics (Under UGC Autonomy Grant), on 13th February 2015, at NMSSVN College, Madurai.
8. Participated in the National level Seminar on "**Recent Trends in Ultrasonic Applications of Medical Physics**" organized by the Department of Physics (Under UGC Autonomy Grant), on 31st July 2015, at Mannar Thirumalai Naicker College, Madurai.

9. Participated in the National level Seminar on **“Nanoscience and Nanotechnology”** organized by the PG & Research Department of Physics (Under UGC Autonomy Grant), on 18th February 2016, at NMSSVN College, Madurai.
10. Participated in National Seminar on **“Spectroscopic Approaches for Biological and Physical Systems”** organized by the PG & Research Department of Physics (Under UGC Autonomy Grant), on 2nd February 2018, at NMSSVN College, Madurai.
11. Participated in International Workshop on **“Industry 4.0 for SMEs”** organized by the SACS MAVMM Engineering College, Madurai, on 8th February 2018.
12. Participated in the National Seminar on **“Trends in Theoretical Physics”**, organized by the PG & Research Department of Physics (Under UGC Autonomy Grant), on 22nd February 2019, at NMSSVN College, Madurai.
13. Participated in the National Conference on **“DESIGN AND APPLICATIONS OF EMERGING MATERIALS (NCDAEM - 2020)”** organized by the PG & Research Department of Physics (Under UGC Autonomy Grant), on 19th February 2020, at NMSSVN College, Madurai.
14. Participated in the webinar on **“MICRO & NANOTECHNOLOGY AND ITS APPLICATIONS”** organized by Department of Physics, on 14th May 2020, at G.T.N. Arts College (Autonomous), Dindigul.
15. Participated in the International Webinar on **“THIN-FILM TECHNOLOGIES IN OUR DAILY LIFE”**, organized by the PG and Research Department of Physics, on 30th May 2020, at Nadar Mahajana Sangam S. Vellaichamy Nadar College, Nagamalai, Madurai.
16. Participated in the Two days Webinar on **“ENGINEERING MATERIALS AND ITS APPLICATION”** organized by the School of Science and Humanities, Department of Physics, on 17th -19th June 2020, at Sathyabama Institute of Science and Technology, Chennai.

17. Participated in the International Webinar series on **“ASTRONOMY AND ASTROPHYSICS”** organized by the Department of Applied Physics, on 19th June 2020, at Karunya Institute of Technology and Science, Coimbatore.
18. Participated in the Webinar on **“RECENT TRENDS IN SOLAR ENERGY MATERIALS”** organized by the Department of Physics, on 26th June 2020, at Dr. Zakir Husain College, Ilayangudi.
19. Participated in International Virtual Conference on **“ADVANCED MATERIALS FOR ENERGY AND ENVIRONMENTAL APPLICATIONS (ICAMEEA - 2020)”** organized by the International Relationship Centre, on 26-27th June 2020, at Bharathidhasan University, Tiruchirappalli.
20. Participated in the One day National Webinar on **“RECENT RESEARCH TRENDS IN CHEMISTRY”** organized by the Department of Chemistry and Science, on 26th June 2020, at Nabira Mahavidyalaya in collaboration with Sant Gadgemaharaj Mahavidyalaya Higna, Dist. Nagpur.
21. Participated in the International Webinar on **“ADVANCES IN FUNCTIONAL MATERIALS (IWAFFM)”** organized by the Department of Physics, on 26th - 28th June 2020, at Mar Ivanios College, Thiruvananthapuram.
22. Participated in the International Webinar on **“SEMICONDUCTOR DESIGN PROCESS IN INDUSTRIES - 2K20”** organized by the Department of Physics, on 29th June 2020, at Manonmaniam Sundaranar University Constituent College, Kanyakumari.
23. Participated in the Webinar on **“MATHEMATICS-QUALITATIVE BEHAVIOURS OF FRACTIONAL DELAY DIFFRACTIONAL EQUATIONS”** organized by the Department of Science and Humanities, on 2nd July 2020, at Amirtha College of Engineering & Technology, Kanyakumari.
24. Participated in the National Level Webinar on **“STABLE ORGANIC-INORGANIC HYBRID HALIDE PEROVSKITE NANOCRYSTALS FOR**

- LEDs" organized by the PG & Research Department of Physics, on 3rd July 2020, at Thiagarajar College, Madurai.
25. Participated in the Webinar on **"CHEMISTRY-SMART MATERIALS FOR SECURITY APPLICATIONS: CHALLENGES AND OPPORTUNITIES IN ANTI-COUNTERFEITING"** organized by the Department of Science and Humanities, on 3rd July 2020, at Amirtha College of Engineering & Technology, Kanyakumari.
 26. Participated in the Webinar on **"RESEARCH GETTING PUBLISHED"** organized by the Department of Science and Humanities, on 4th July 2020, at Amirtha College of Engineering & Technology, Kanyakumari.
 27. Participated in the Webinar on **"SMART MATERIALS AND APPLICATIONS"** organized by the Department of Physics, on 9th July 2020, at Kamaraj College, Thoothukudi.
 28. Participated in the Webinar on **"EPOCH OF NONLINEARITY IN OPTICS"** organized by the Department of Physics, on 29th July 2020, at Mannar Thirumalai Naicker College, Madurai.
 29. Participated in the Webinar on **"NANOPOROUS ACTIVATED CARBON FOR ENERGY STORAGE AND ENERGY CONVERSION"** organized by the PG and Research Department of Physics, on 13th October 2021, at Nadar Mahajana Sangam S. Vellaichamy Nadar College, Nagamalai, Madurai.

Faculty Development Programme/Short Term Course attended (other than MTNC):

1. Participated in the National Level Five Day faculty development program on **"Scilab (Remote Learning Through Spoken Tutorial)"** organized by the Department of Science & Humanities in association with IIT-Bombay, on 15th - 19th June 2020, at St. Peter's Engineering College, Hyderabad, Telangana.
2. Participated in the Online one week Faculty Development Program on **"INNOVATIONS IN APPLIED RESEARCH FOR SCIENCE AND TECHNOLOGY"** organized by the Department of Basic Science and

Humanities, on from 11th to 18th October 2021, at KDKCE Nagpur in association with Indian Association for Radiation Protection (IARP), Luminescence Society of India (LSI) & Society for Technologically Advanced Material of India (STAMI).