

CURRICULUM VITAE

Dr. NAMITHA ASOKAN T.

Assistant Professor

Department of Physics

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Personal details

Date of birth	:	10-05-1982
Nationality	:	Indian
Marital Status	:	Married
Languages known	:	English, Malayalam, Hindi
Permanent address	:	Pathrakadavil House Vadakkumpuram P O, Ernakulam Dist. Kerala, 683521

Academic degrees

Ph. D. on “A study on reactively evaporated chalcogenide thin films for optoelectronics and thermoelectric energy conversion” awarded on 06-04-2018. The work is done under the guidance of Prof. B. Pradeep, Department of Physics, Cochin University of Science and Technology

M.Sc. Physics with third rank from Mahathma Gandhi University, *Kottayam, Kerala, India, 2004*

B.Ed in Physical Science from Mahathma Gandhi University, *Kottayam, Kerala, India, 2005*

B.Sc. Physics from Mahathma Gandhi University, *Kottayam, Kerala, India, 2002*

Details of merit certificates and scholarship received

- Passed State Eligibility Test (SET) in Physics
- Passed the **National Eligibility Test (CSIR-NET)** in physics.
- Research Fellowship in Sciences for Meritorious Students(RFSMS) from UGC, May 2009 – Jan 2011

- GATE score in 2006

Teaching and Research Experience

- Guest Faculty at Centre of Excellence in Lasers and Optoelectronic Sciences (CELOS), Cochin University of Science and Technology from July 2006 – Feb 2008
- Full Time Research Scholar at Department of Physics Cochin University of Science and Technology Oct. 2008 – Dec 2010 ; Part Time Research Scholar Jan 2011-Sep. 2015; Full time Research scholar under FDP, UGC XIIth plan from 11th Sep. 2015 onwards
- Assistant Professor at Department of Physics Sree Narayana College Nattika, Thrissur, Kerala from 10th Jan 2011 onwards

Orientation Course Attended

- Orientation course attended from 02.06.2015 to 29.06.2015 at UGC – Academic Staff College, Calicut University
- Attended an orientation programme for coordinators of WWS organised by Directorate of Collegiate Education at Loyola College, Trivandrum on 11-9-2018
- Attended an orientation programme for coordinators of WWS organised by Directorate of Collegiate Education at Loyola College, Trivandrum on 11-6-2019
- Attended an orientation programme for coordinators of WWS organised by Directorate of Collegiate Education at Loyola College, Trivandrum on 21-8-2019

Refresher Course Attended

- Refresher course attended from 29/11/2016 to 19/12/2016 at UGC-HRDC University of Kerala.
- Refresher course attended from 3/12/2019 to 17/12/2019 at UGC-HRDC University of Calicut.
- One week FDP Programme attended from 3/11/2020 to 9/11/2020 organised by MHRD, Guru Angad Dev Teaching learning centre and Christ College Irinjalakkuda.
- One week E-Summer school 13-19 May 2020, Organised by Bishopmore College, Mavelikkara.
- Refresher Course in Material Science organized by HRDC, University of Calicut, 17-06-2022 to 30-06-2022.

Academic and Administrative Responsibilities

- Member, FIST Committee
- Remedial Teaching Committee
- Committee for Internal Examination
- Ethics Committee

- Tutorial Committee
- Co-ordinator, WWS programme
- Resource person of Talent Hunt- Sasthrajalakam organised by SIET Kerala
- Scholarship Committee
- Guidance and Counseling and Carrier Guidance
- Member of Board of Studies of Nano Science and Technology, University of Calicut
- Head of the Department of Physics
- Chairperson of fourth semester Core/Complementary Practical Examination July 2021&2022
- Purchase Committee
- UGC-RUSA Committee
- Member, Science Foundation Committee for DBT
- Deputy Warden, Ladies Hostel
- Member Career Guidance & Placement Cell
- Member, Research and publication committee

Journal Publications

- [1] **Namitha Asokan T.**, K. S. Urmila and B. Pradeep, “Structural, optical, transient photoconductivity studies and low temperature thermoelectric power measurements on reactively evaporated lead selenide thin films,” *J. Mater. Sci.: Mater.in Electron.*, vol. 27, pp. 5646–5653, 2016.
- [2] **Namitha Asokan T.**, K. S. Urmila, B. Pradeep, “Electrical and photoconductivity studies on AgSbSe₂ thin films,” *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 73, pp. 012013 1–3, 2015.
- [3] **Namitha Asokan T.**, K. S. Urmila, Rajani Jacob, Rachel Reena Philip, G. S. Okram, V. Ganesan and B. Pradeep, “Optical and electrical properties and phonon drag effect in low temperature TEP measurements of AgSbSe₂ thin film,” *J. Semicond.*, vol. 35, pp. 052001 1-6, 2014.
- [4] **Namitha Asokan T.**, K. S. Urmila and B. Pradeep, “Structural and Optical Studies on AgSbSe₂ thin films,” *AIP Conf. Proc.*, vol. 1576, pp. 60–62, 2014.
- [5] K. S. Urmila, **Namitha Asokan T.**, B. Pradeep, “Thermoelectric figure of merit in degenerate Cu₇Se₄ and non degenerate InSe thin films,” *Int. J. Recent. Res. Rev.*, vol. 9, pp. 13, 2016.
- [6] K. S. Urmila, **Namitha Asokan T.** and B. Pradeep, “Analysis of structural parameters and low temperature electrical conductivity and thermoelectric power in slightly Cu rich p-type CuInSe₂ thin films,” *Int. J. Recent. Res. Rev.*, vol. 8, pp. 1, 2015.
- [7] K. S. Urmila, **Namitha Asokan T.** and B. Pradeep, “Characterisation of defect levels and their influence in photoconductivity of p-type CnInSe₂ thin films,” *Int. J. Recent. Res. Rev.*, vol. 8, pp. 10, 2015.
- [8] K. S. Urmila, **Namitha Asokan T.**, Rajani Jacob, Rachel Reena Philip, and B. Pradeep,

- “Optoelectronic properties and Seebeck coefficient in SnSe thin films,” *J. Semicond.*, vol. 37, no. 9, pp. 093002 1–6, 2016.
- [9] K. S. Urmila, **Namitha Asokan T.**, Rachel Reena Philip, V. Ganesan, G. S. Okram and B. Pradeep “Structural, optical, electrical and low temperature thermoelectric properties of degenerate polycrystalline Cu₇Se₄ thin films,” *Phys. Status Solidi B*, vol. 251, pp. 689–696, 2014.
- [10] K.S. Urmila, **Namitha Asokan T.**, Rachel Reena Philip and B. Pradeep, “Optical and low-temperature thermoelectric properties of phase-pure p-type InSe thin films,” *Appl. Phys. A*, vol. 120, no. 2, pp. 675–681, 2015.
- [11] Rachel Reena Philip, S. Dhanya, **Namitha Ashokan T.** and B. Pradeep, “Effect of Ga incorporation on valence band splitting of OVC CuIn₃Se₅ thin films,” *Journal of Phy. and Chem. of Solids*, vol. 72, pp. 294–298, 2011.
- [12] K.S. Urmila, **Namitha Asokan T.** and B. Pradeep, “Structural and optical characterization of reactive evaporated tin diselenide thin films,” *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 73, pp. 012058 1–5, 2015.
- [13] K. S. Urmila, **Namitha Asokan T.**, Rajani Jacob, Rachel Reena Philip and B. Pradeep, “Photoconductivity in Reactively Evaporated Copper Indium Selenide Thin Films,” *AIP Conf. Proc.*, vol. 1576, no. 69, pp. 69–72, 2014.
- [14] K. S. Urmila, **Namitha Asokan T.** and B. Pradeep “Photoluminescence Study of Copper Selenide Thin Films,” *AIP Conf. Proc.*, vol. 1391, pp. 770–772, 2011.
- [15] R. Geethu , Dhanya S., Sreenivasan P. V., **Namitha Ashokan T.**, B. Pradeep and Rachel Reena Philip “Optoelectronic Properties of Nanostructured Cadmium Sulphide Thin Films,” *AIP Conf. Proc.*, vol. 1391, pp. 585, 2011.
- [16] N H Sheeba, A.Namitha, K M Ramziya, T M Ashitha and R Suhail," Effect of deposition time on structural and optoelectronic properties of flower like nano structured PBS thin films", *Journal of Scientific research* , 2021

Conference Publications

- [1] **Namitha Asokan T.**, K. S. Urmila and B. Pradeep, “Optical investigation on polycrystalline Pb_{3.58}Sb_{4.42}Se₁₀ thin films,” in *fourth international conference on frontiers in nanoscience and technology (Cochin NANO-2016), February 20-23, 2016*

CUSAT, Kochi.

- [2] **Namitha Asokan T.**, K. S. Urmila and B. Pradeep , “Structural and Optical Studies on AgSbSe₂ Thin Films,” in *International Conference on Optoelectronic Materials and Thin Films (OMTAT)*, January 3-5, 2013 CUSAT, Kochi.
- [3] **Namitha Asokan T.**, K. S. Urmila and B. Pradeep , “Electrical and Photoconductivity studies on AgSbSe₂ thin films,” in *International Conference on Materials Science and Technology (ICMST)*, June 10-14, 2012 Pala.
- [4] **Namitha Asokan T.**, K. S. Urmila and B. Pradeep, “Optical and electrical characterisation of silver selenide thin films,” in *National conference on Advances in Materials Science: Macro to Nano Scales (NCAMS)*, March 16- 17, 2012 Aluva.
- [5] **Namitha Asokan T.**, K. S. Urmila, B. Pradeep, S. Dhanya and Rachel Reena Philip, “Optical characterisation of lead selenide thin films prepared by reactive evaporation,” in *International Conference on Contemporary trends in Optics and Opto Electronics*, January 17-19, 2011 Thiruvananthapuram.
- [6] K. S. Urmila, **Namitha Asokan T.** and B. Pradeep “Sn₂Sb₄Se₈ thin films-a novel chalcogenide for energy applications,” in *International conference on materials for the millennium (MATCON 2016)*, January 14-16, 2016 Kochi
- [7] K. S. Urmila, **Namitha Asokan T.** and B. Pradeep, “InSbSe₃ thin films – a prospective absorber layer material for thin film solar cells”, in *international conference on energy harvesting, storage and conversion (IC-EEE 2015)* , February 5-7, 2015 Kochi.
- [8] K. S. Urmila , **Namitha Asokan T.** and B. Pradeep, “Optoelectronic properties of phase pure InSe Thin Films,” in *ICAFM 2014*, pp. 328–329.
- [9] K.S. Urmila, **Namitha Asokan T.** and B. Pradeep, “SnSe thin films-A prospective material for thermoelectric applications,” NCAM 2014, p. 35.
- [10] Simi George, **Namitha Asokan T.**, K. S. Urmila, Anuroop R. and B. Pradeep, “Structural and electrical studies of reactively evaporated lead selenide thin film,” NCAM 2014, p. 34.
- [11] K. S. Urmila, **Namitha Asokan T.**, B. Pradeep, Rajani Jacob and Rachel Reena Philip, “Photoconductivity in Reactively Evaporated Copper Indium Selenide Thin Films,” in *International Conference on Optoelectronic Materials and Thin Films (OMTAT)*, January 3-5, 2013 CUSAT, Kochi.
- [12] K. S. Urmila, **Namitha Asokan T.** and B. Pradeep, “Structural and Optical Characterization of reactive evaporated tin diselenide thin films,” in *International Conference on Materials Science and Technology (ICMST)*, June 10-14, 2012 Pala.

- [13] K. S. Urmila, **Namitha Asokan T.** and B. Pradeep, “Structural and Electrical Characterization of Copper Selenide thin films,” in *National conference on Advances in Materials Science: Macro to Nano Scales (NCAMS), March 16-17,, 2012 Aluva.*
- [14] K. S. Urmila, **Namitha Asokan T.** and B. Pradeep, “Preparation and Optical Characterization of Indium Selenide thin films,” in *National Seminar on Trends in Physical Sciences (TriPS), July 21- 22, 2011 Kalady.*
- [15] R. Geethu , S. Dhanya, P. V. Sreenivasan, **Namitha Ashokan T.**, B. Pradeep, Rachel Reena Philip, “Optoelectronic Properties of Nanostructured Cadmium Sulphide Thin Films,” in *International Conference on light OPTICS’ 11,May 23-25 2011 NIT Calicut.*
- [16] Urmila K. S. , **Namitha Asokan T.** and B. Pradeep. “Photoluminescence study of copper selenide thin films,” in *International Conference on light OPTICS’ 11,May 23-25 2011, NIT Calicut*
- [17] K.S. Urmila, **Namitha Asokan T.** and B. Pradeep, “Preparation and optical characterisation of copper selenide thin films,” in *International Conference on Contemporary trends in optics and Opto Electronics, January 17-19, 2011 Thiruvananthapuram.*
- [18] Hiba Rahman, Reshmi Radhakrishnan, Nafsia Karim, Faseela K, Dhanya s, **Namitha Asokan T**, B. Pradeep and Rachel Reena Philip. "Optical properties of flower like nanostructured films of PbS," in *International Conference on Contemporary trends in optics and Opto Electronics, January 17-19, 2011 Thiruvananthapuram.*
- [19] Vishnu N.G., Dhanya P and NamithaAsokan T. 2018. Structural, electrical and optical studies on PbS₂ thin films prepared using reactive evaporation method. National Seminar on Advances in Applied Physics and Applications, September 26-27, 2018, Organised by Sree Krishna College Guruvayoor.

Seminars/Conferences Attended

1. Participated Workshop on General Informatics conducted 11-13 January 2011 at Sree Narayana College, Nattika
2. Participated in National Workshop on Recent Trends in theoretical Physics (NWRTP) held during 19-21 March 2011 at Department of Physics, CUSAT
3. Participated in Third International Conference on Frontiers in Nanoscience and Technology (COCHIN NANO-2011) held during 14-17 August 2011 organized by CUSAT

4. Participated in National Conference on Frontiers of Instrumentation (FROINS-2012) held on 31st Jan and 1st Feb 2012 at KKTU Govt. College, Pullut.
5. Participated in National conference on Advances in Materials Science: Macro to Nano Scales-NCAMS-2012 at UC College, Aluva, March 16th-17th 2012
6. Participated in International Conference on Material science and Technology (ICMST 2012) held during 10-14 Jun 2012 at Department of Physics, St. Thomas College, Pala
7. Participated in 2nd International Conference on Optoelectronic Materials and Thin Films (OMTAT-2013), Department of Physics, CUSAT, Kochi, 3-5 January 2013
8. Participated in National Seminar on Advances in Theoretical Physics held on 10th and 11th October 2013 at KKTU Govt. College, Pullut
9. Participated in International Conference on Energy Harvesting Storage and Conversion (IC-EEE-2015) 5-7 February 2015, Department of Physics CUSAT
10. Participated UGC sponsored National Seminar on Human Rights: Concepts, Conflicts and Consensus, 23-25 March 2015, Department of Political Science and Centre for Human Rights and Democracy, Sree Narayana College Nattika
11. Participated in National Seminar on Advanced Topics in Chemistry-ATC-2015 organised by Department of Chemistry, Sree Narayana College Nattika.
12. Participated in Fourth International Conference on Frontiers in Nanoscience and Technology (COCHIN NANO-2016), 20-23 Feb. 2016, CUSAT
13. Participated in one day seminar on Design concepts of Electronic experiments, Department of Physics, Christ college, Irinjalakuda on 20-10-2017
14. Participated in Seminar on "Nobel Laureates in physics 2017-LIGO Founders", Department of Physics, Sree Narayana College Nattika on 10-11-2017
15. Participated in Seminar on "Telescope -2K18-Super Blue Blood Moon", Department of Physics, Sree Narayana College Nattika on 31-01-2018
16. Participated in Seminar on "Revised Accreditation Process of NAAC" organised by IQAC Sree Narayana College Nattika on 26-06-2018
17. Participated in National Seminar on Advances in Applied Physics and Applications, Post Graduate Dept. of Physics and Research Centre, Sree Krishna College Guruvayoor on 26-09-2018 and 27-09-2018
18. Participated in Seminar series "Parambara 2018 – Kerala after the DELUGE" organised by Research and Publication committee, Sree Narayana College Nattika on 22-11-2018 to 5-12-2018

19. Participated in Three day state level science enrichment programme “Saasthrajalakam ”organised by SIET sponsored by State education department on 18-11-2018 to 20-11-2018 at Sree Narayana College Nattika
20. Participated in Seminar on” Fibres and Ribbos for Powering wearable devices”, Science club, Sree Narayana College Nattika on 4-01-2019
21. Participated in Orientation programme on Industria-2019-Energy Conservation, Department of Physics Sree Narayana College Nattika on 24-01-2019.

Academic/Administrative responsibilities within the University

- Member of Board of Studies of Nano Science and Technology, University of Calicut (From 2020 to 23)
- Chairperson of Fourth semester Core/Complementary Physics Practical Examination (From 2021 to 2023)

Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Member / Convenor / Co-Convenor)

- Co- ordinator, Seminar competition on “Nobel Laureates in Physics 2017-LIGO Founders”, a Knowledge Exchange Program organised by Dept. of Physics, Sree Narayana College, Nattika on 10/11/2017.
- Member, “TELESCOPE 2K18”, a seminar on “Super Blue Blood Moon”, a Knowledge Exchange Program organised by Department of Physics, Sree Narayana College Nattika on 31th January 2018.
- Member, “Open House and Hands on Training Programme - SPARK 2018 ” organised by Department of Physics, Sree Narayana College Nattika on 25th January 2018.
- Member, Poster Competition on “Women in Science and Technology” organised by Department of Physics, Sree Narayana College Nattika on 2nd March 2018.
- Member, “Recent trends in Physics”, a Knowledge Exchange Program organised by Department of Physics, Sree Narayana College Nattika on 5th November 2018.
- Member, “Parampara 2018 – Kerala After The Deluge”, a seminar series organised by Research and Publication Committee, Sree Narayana College Nattika from 22th November to 5th December 2018.
- Member, Three day state level science enrichment programme “SASTHRA JAALAKAM” organized by SIET with the financial support of State Education Department from 18th November 2018 to 20th November 2018.

- Member, “Industria-2019”, an orientation programme on Energy Conservation organised by Department of Physics, Sree Narayana College Nattika on 24th January 2019.
- Member, “Glimpses of Physics”, a poster competition programme as a part of National Science Day 2018, organised by Department of Physics, Sree Narayana College Nattika on 28th February 2019.
- Co-ordinator of the programme, “Ozone Day Celebration-2019, 32 Years and Healing” as part of World Ozone Day Celebration, organised by Department of Physics and Department of Chemistry, Sree Narayana College Nattika and sponsored by KSCSTE on 24th September 2019.
- Member, video presentation on “Nobel Laureates in Physics 2020 ”, a Knowledge Exchange Programme organised by Department of Physics, Sree Narayana College, Nattika .
- Member, 'IGNIS 2020', an online quiz organised by Department of Physics, Sree Narayana College, Nattika on 12th August 2020.
- Member, one day webinar on ‘Sustainable Energy Development- a Necessity of Present and Future’ organized by Department of Physics in association with Research and Publication committee and IQAC, Sree Narayana College, Nattika on 30th December 2020.
- Member, an International webinar on ' Atmospheric neutrino Oscillations' organised by Department of Physics, Sree Narayana College, Nattika under the financial support of Academic of Physics Teachers, Kerala on 27/02/2021.
- Member, “Paying Homage to Thanu Padmanabhan” organised by Department of Physics, Sree Narayana College, Nattika on 24/09/21.
- Member, “Urjakiran 2021-22” organised by Department of Physics, Sree Narayana College, Nattika in collaboration with EMC, Kerala
- Member, A webinar on “Semiconductor nanofabrication: Applications in Mesoscopic Physics” organised by Department of Physics, Sree Narayana College, Nattika on 16/12/2021.
- Member, Webinar on “Physics Nobel Laureates 2022” organized by Department of Physics, Sree Narayana College, Nattika on 07 December 2022.
- Member, Programme on “World Energy Conservation Day” organized by Department of Physics, Sree Narayana College, Nattika in association with EMC on 15 December

2022. Organizing committee member of Physics Exhibition – Spectrum 2K22 organized by Department of Physics, Sree Narayana College, Nattika, on 23 March 2022.

- Member, Parampara 2023-24 on “ Spectrum of Development: Challenges and Innovations” organized by Department of Physics, Sree Narayana College, Nattika on 20 February 2023.
- Member, National Science Day Celebration – 2023, celebrated as open day for school students by conducting exhibition at Department of Physics, Sree Narayana College, Nattika on 28 February 2023.
- Member, of poster making competition for school students on “Touching Lives While Touching the Moon: India’s Space Saga” organized by Department of Physics, Sree Narayana College, Nattika on 23 August 2024.
- Member, Certificate Course on “ Arduino – Based Robotics“ organized by Department of Physics Sree Narayana College, Nattika under the aegis of DBT star on 13 - 16 January 2024.
- Member, Astrophotography competition “Capturing the Cosmos: Astrophotography Competition” organized by Department of Physics Sree Naratyana college, Nattika on 31-01-2024.
- Member, one day workshop on “Build & Behold – Sunspot watching and telescope making Workshop” organized by Department of Physics Sree Narayana College, Nattika under the aegis of DBT- Star scheme on 11 November 2024.
- Member, “Build & Behold – Science under the Stars – Part II – Star Gazing” organized by Department of Physics, Sree Narayana College, Nattika under the aegis of DBT Star scheme on 07 January 2025.
- Member,Parampara 2023-24 on “Artificial Intelligence Prospects and Pitfalls organized by Department of Physics, Sree Narayana College, Nattika on 14 March 2024.
- Member, ‘Sasthrasametham’ a Science awareness Programme organized by Department of Physics, Sree Narayana College, Nattika in collaboration with Department of General Education & District Panchayath on 13 January 2024.
- Member, Workshop on Build and Behold- Sunspot watching and Telescope making workshop organized by Department of Physics, Sree Narayana College, Nattika under the DBT-Star scheme on 11 November 2024

- Member, SciFusion 2025: Bridging Chemistry, Physics, and Life Sciences- A National level Science workshop organized by Department of Physics, Sree Narayana College, Nattika under the DBT-Star scheme on 28-30 January 2025
- Member, Thrissur District Level National Science Day Celebration-2025 organised by Department of Physics, Sree Narayana College, Nattika under the support of KSCSTE and DBT-Star scheme on 20 February 2025
- Member, Workshop on Exploring Physics with ExpEYES, organized by Department of Physics, Sree Narayana College, Nattika under the DBT-Star scheme on 13 March 2025

Details of Projects

- Estimation of structural, electrical properties of PbS₂ thin films prepared using reactive evaporation technique under the financial support of KSCSTE (221/SPYTiS-II/2017/KSCSTE Dated 23/9/2017 towards the SPYTiS project).
- Microstructural and electrical studies of Ag₂S thin films prepared by thermal evaporation techniques.
- Effect of substrate temperature on microstructural and optical properties of Ag₂S thin films prepared by reactive evaporation technique
- Supervising Guide of M.Sc. Project entitled “Structural, Electrical and Optical Characterisation of Sb₂Se₃ Thin Film prepared using Reactive Evaporation” done by Ms. ShyamBhavi S. during the Academic year 2022-23. Ms. Shyambhavi S. has presented a poster on the same in the National Seminar on Physics of Advanced Materials and Applications (NSPAMA-2023) organized by Department of Physics, St. Aloysius College, Elthuruth, Thrissur on 06 November 2023.
- Supervising Guide of BSc Physics Students project entitled “Distance Measuring Sensor” during the Academic year 2024-25.