

Dr. Anshad A

PERSONAL DATA

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EDUCATION

<i>NoV 2019</i> <i>Dec 2011</i>	Ph.D in Physics: Optics & Holographic materials Department of Physics Cochin University of Science & Technology (CUSAT) Cochin - 682 022, India <i>Thesis title:</i> "Studies on some non-conjugated and conjugated polymer systems for holographic recording" <i>Supervisor:</i> Dr. C Sudha Kartha, Emeritus Professor, Department of Physics, CUSAT [karthasudha@gmail.com]
<i>JUN 2011</i> <i>JUL 2009</i>	Master of Science in Physics Cochin University of Science & Technology (CUSAT), Cochin, India Graduated with 1st division (71.5%) Elective papers: Quantum field theory, Advanced Mathematical Physics
<i>JUN 2009</i> <i>JUL 2006</i>	Bachelor of Science in Physics Kerala University, Thiruvananthapuram, Kerala 695 034, India Graduated with 1st division (86.5%)

RESEARCH POSITIONS

<i>2011 Dec' -</i> <i>2019 Nov</i>	Research student in Applied Optics Division Laboratory, at Department of Physics, Cochin University of Science and Technology, Cochin, India.
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TEACHING EXPERIENCE

- Assistant professor (Guest Lecturer), Department of Physics, Al-Ameen College, Edathala, Ernakulam, (June 2019 - March 2020)
 - I have taught a section of the paper Solid State Physics which includes Physics of free electron theory and band theory of electrons in metals, and also a section of the paper advanced optics-which includes the basic concepts of Nonlinear Optics, for MSc students in the Department of Physics, Cochin University of Science & Technology, India
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ACADEMIC ACHIEVEMENTS, AWARDS & HONOURS

- BEST PAPER AWARD in Physical Sciences in the 29th Kerala Science Congress held at Marthoma college, Thiruvalla during 28-30 January 2017.
 - Qualified the National Eligibility Test (NET), conducted by the Council of Scientific & Industrial Research (CSIR), Government of India (2012 DEC, 2014 DEC).
 - Qualified the Graduate Aptitude Test in Engineering (GATE-Physics), conducted by the Ministry of Human Resource Development (MHRD), Government of India (2012).
 - Awarded University-JRF Fellowship by Cochin University of Science and Technology (2011- 2012).
 - Awarded UGC-BSR Fellowship by University Grants Commission (UGC), Government of India (2012).
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RESEARCH EXPERIENCE

- Thin film preparation and photoconductivity measurements of photoconducting polymers.
 - Debye Guggenheim experiments for the calculation of ground state dipole moment of typical NLO molecules.
 - Solvatochromic measurements for the calculation of excited state dipole moment and hence the calculations of first hyperpolarizability of typical NLO molecules.
 - Measurements of electro-optic coefficient of NLO composites.
 - Holographic recording in photorefractive media.
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INSTRUMENT/CHARACTERISATION TOOLS HANDLED

- UV-visible NIR Spectrophotometer.
 - Fluorimeter for Photoluminescence measurement.
 - Keithely Source Measure Unit (Electrical Characterisation).
 - Vacuum thermal Evaporation Unit.
 - Spin-Coating Unit.
 - Helium-Neon Laser (632 nm), Diode Laser (532 nm), Optically Pumped Semiconducting Solid state
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- Laser (488 nm), Argon-Ion Laser (488 nm) and He-Cadmium Laser (325 nm, 442 nm)
 - FTIR (Fourier Transform Infrared Spectroscopy)
 - AFM (Atomic Force Microscopy)
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OTHER CONTRIBUTIONS

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- Teaching assistantship, at M.Sc Physics Laboratory, CUSAT.
 - Member of Interview Board, All Kerala Physics Talent Search Examination conducted by Academy of Physics Teachers Kerala (APT).
 - Student Convener for Inculcate Programme for School students Conducted by Government of Kerala.
 - Part of the Organising committee for various International Conferences at CUSAT.
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LIST OF PUBLICATIONS

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- "Sustainable synthesis of 1, 8- Dioxooctahydroxanthrenes in deep eutectic solvents (DES)" Shaibuna M, Anshad Abbas, Muhammed Jeneesh Kariyottu Kuniyil and K Sreekumar New Journal of Chemistry, 45 (2021), 8335-8344.
 - "Photophysical and photoconductive aspects of donor-acceptor low band gap conjugated copolymer" Anshad Abbas, Jisha J. Pillai, K. Sreekumar, Rani Joseph, C. Sudha Kartha Optical Materials 84 (2018) 813-820.
 - "Study on the photoconductive properties of charge carriers in donor-acceptor copolymer P(EDOT-FL) and P(EDOT-FL):PCBM blend" Anshad Abbas, Jisha J. Pillai, Sona Narayanan, K. Sreekumar, Rani Joseph, C. Sudha Kartha. Synthetic Metals 233 (2017) 52-57.
 - "Synthesis and experimental investigations on the photoconductivity of p-aminoazobenzene based non-conjugated polybenzoxazine system" Jisha J. Pillai, Anshad Abbas, Sona Narayanan, K. Sreekumar, C. Sudha Kartha, Rani Joseph. Polymer 137 (2018) 330-337.
 - "Low band gap donor-acceptor phenothiazine copolymer with triazine segment: Design, synthesis and application for optical limiting devices" Sona Narayanan, Anshad Abbas, C.P. Anjali, Sowmya Xavier, C. Sudha Kartha, K.S. Devaky, Krishnapillai Sreekumar, Rani Joseph. Journal of Luminescence 198 (2018) 449-456.
 - "Theoretical and experimental investigations on the photoconductivity and nonlinear optical properties of donor-acceptor p conjugated copolymer, poly(2,5-(3,4-ethylenedioxythiophene)-alt-2,7-(9,9-dioctylfluorene))" Sona Narayanan, Anshad Abbas, Sreejesh Poikavila Raghunathan, Krishnapillai Sreekumar, Cheranellor Sudha Kartha and Rani Joseph. RSC Adv., 2015, 5, 8657.
 - "Synthesis and third-order nonlinear optical properties of low band gap 3,4-ethylenedioxythiophene-quinoxaline copolymers" Sona Narayanan, Sreejesh Poikavila Raghunathan, Sebastian Mathew, M.V. Mahesh Kumar, Anshad Abbas,
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CONFERENCE PROCEEDINGS

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- “Photoconductivity studies on poly(2,5-(3,4-ethylenedioxythiophene)-alt-2,7-(9,9-dioctylfluorene)) sensitized with Phenyl-C61-butyric acid methyl ester” Anshad A, Sona Narayanan, Jisha J Pillai, Sudha Kartha C, Sreekumar K and Rani Joseph. 22nd DAE-BRNS National Laser Symposium (NLS-22), Jan 08-14, 2014, Organized by Department of Atomic and Molecular Physics, MIT, Manipal University, Manipal, Karnataka, India-576 104
 - “Photoconductivity studies on Poly(6-tertiary-butyl-3-phenyl-3,4-dihydro 2H-1,3-benzoxazine) sensitized with Phenyl-C61-butyric acid methyl ester” Jisha J Pillai, Anshad A, Sudha Kartha C, Sreekumar K and Rani Joseph. 24th DAE-BRNS National Laser Symposium (NLS-24), Dec 02-05, 2015, Organized by Raja Ramanna Centre for Advanced Technology, Indore-452 013.
 - “Synthesis, Characterization and Photoconductivity Studies of p-Aminoazobenzene Based Polybenzoxazine System”, Jisha J P, Anshad A, Sudha C K, Sreekumar K, Rani J. MatCon 2016, held at Cochin University on 2016 , Organized by Department of Chemistry, CUSAT.
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CONFERENCE TALKS & POSTERS

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- Presented a talk Photogeneration studies at the P(EDOT-FL): PCBM interface for using as a photorefractive polymer in the 29th Kerala Science Congress held at Marthoma college, Thiruvalla during 28-30 January 2017.
 - Presented a poster titled Photoconductivity studies on poly(2,5-(3,4-ethylenedioxythiophene)-alt-2,7-(9,9-dioctylfluorene)) sensitized with Phenyl-C61-butyric acid methyl ester at 22nd DAE-BRNS National Laser Symposium (NLS-22), Jan 08-11, 2014, Organized by Department of Atomic and Molecular Physics, MIT, Manipal University, Manipal, Karnataka, India-576 104 .
 - Presented a poster titled Photoconductivity studies on Poly(6-tertiary-butyl-3-phenyl-3,4-dihydro 2H-1,3-benzoxazine) sensitized with Phenyl-C61-butyric acid methyl ester at 24th DAE-BRNS National Laser Symposium
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(NLS-24), Dec 02-05, 2015, Organized by Raja Ramanna Centre for Advanced Technology, Indore-452 013.

SCHOOL & WORKSHOPS

- Attended “Fourth International Conference on “Frontiers in Nanoscience and Technology, Cochin Nano 2011”, held at Cochin on February 20-23, 2016, organized by Department of Physics, CUSAT, Cochin-682 022.
- Attended “Recent Trends in nanotechnology for Age Old (RTNAO-2016)” held at Department of Physics, CUSAT, on March 10, 2016, Organized by Centre for Enabling Technology for the Aged, CUSAT.
- Attended “The International Conference on Energy Harvesting, Storage and Conversion (IC-EEE 2015)” held at Cochin on February 05-07, 2015, organized by Department of Physics, CUSAT, Cochin-682 022.
- Attended the Workshop on “Material Characterization Tools & Techniques” held on March 19-21, 2015, organized by Centre for Advanced Materials & Department of Physics, CUSAT, Cochin-682022.
- Attended the National Workshop on “Research Methodology in Physical Sciences (RMPS 2015)” held at Cochin on December 11, 2015, organized by Department of Physics, CUSAT, Cochin-682 022.
- Attended the National workshop on “Energy Materials” on 4th Dec 2014 at Department of Physics, Organized by Department of Physics, CUSAT, Cochin-682 022.
- Attended 21st DAE-BRNS National Laser Symposium (NLS-21), Feb 06-09, 2013, Organized by Bhabha Atomic Research Centre, Mumbai 400 085.
- Attended the second International Conference on “Optoelectronic Materials and Thin films for Advanced Technology (OMTAT 2013)” held at Cochin on January 03-05, 2013, organized by Department of Physics, CUSAT, Cochin-682 022.
- Attended the third International Conference on “Frontiers in Nanoscience and Technology, Cochin Nano 2011”, held at Cochin on August 14-17, 2011, organized by Department of Physics, CUSAT, Cochin-682 022.
- Attended the National workshop on “Recent Trends in Theoretical Physics” (NWRTP-2011), March 19-21, 2011 organized by Department of Physics, CUSAT, Cochin-682 022.

REFERENCES

Dr. C Sudha Kartha Department of Physics Cochin University of Science & Technology (CUSAT) Cochin - 682 022, India Tel +91 9847322578 [karthasudha@gmail.com]
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