

	Name	Dr.Beena Mary John
	Designation	Assistant Professor
	Qualification	M.Sc, PhD, Qualified NET
	Area of Specialisation	Optics- Holography, Material Science (PhotoPolymer)

Educational Qualification

- **Post Doctoral Fellowship- Institute of Optics, University of Paris (Sud XI), France-2008**
- **Ph.D- Cochin University of Science and Technology (2008)**
- **M.Sc - Cochin University of Science and Technology (2001)**

Publications

Journal - 9

1. Jyothilakshmi K, **Beena Mary John**, Anju K.S, Arathy K, Krishna P.B, Sruthy C.T, Maria Chacko, "The feasibility of using methylene blue sensitized polyvinylalcohol film as a linear polarizer" AIP proceedings,1576, 144-146 (2014)
2. **Beena Mary John**, Rani Joseph, K. Sreekumar, C. Sudha Kartha, "Effect of chromium doping on the diffraction efficiency of methylene blue sensitized PVA/acrylamide films", J. Mat. Sci: Mater Electron., 20, S216-S220 (2009)
3. **Beena Mary John**, "Fabrication and Characterization of Dye Sensitized Polymer Films for Holographic Applications", Kiran, 20(1), 12-17(2009)
4. C.P.Jisha, V.C.Kishore, **Beena Mary John**, V.C.Kuriakose, K.Porsezian, C Sudha Kartha, "Self-written waveguide in methylene blue sensitized poly(vinyl alcohol)/acrylamide photopolymer material", Appl.Opt., 47(35),6502-6507 (2008)
5. **Beena Mary John**, Ushamani M, K.Sreekumar, Rani Joseph, C.Sudha Kartha, "Enhancement of Diffraction Efficiency and Storage Life of Poly (Vinyl Chloride) Based Optical Recording Medium with the Incorporation of an Electron Donor", Appl. Opt., 46(3) 346-350 (2007)
6. **Beena Mary John**, Rani Joseph, K.Sreekumar, C.Sudha Kartha, "Copper Doped Methylene Blue Sensitized Poly (vinyl alcohol)-Acrylamide Films for Stable Diffraction Efficiency", Jpn. J.Appl.Phys., 45(11) 8686-8690 (2006)
7. **Beena Mary John**, M.Ushamani, Rani Joseph, K.Sreekumar, C.Sudha Kartha, "Reusable recording medium based on MBPVA and vinyl acetate", J. Mod. Opt., 53(3) 343-355 (2006).
8. **Beena Mary John**, Rani Joseph, K. Sreekumar, C Sudha Kartha, "Self-enhancement of Diffraction Efficiency in MBPVA/Acrylamide Films", Ed. By M.K.Jayaraj, Optoelectronic Materials and thin films, Allied Publishers, Pvt. Ltd., (ISBN 81-7764-978-7), pp.592-599 (2006)
9. C.P.Jisha, **Beena Mary John**, V.C.Kishore, V.C.Kuriakose, K.Porsezian, C Sudha Kartha, "Three

dimensional Self-written optical waveguide in a photopolymer”, Ed. By M.K.Jayaraj, Optoelectronic Materials and thin films, Allied Publishers, Pvt. Ltd., (ISBN 81-7764-978-7), pp.644-6499 (2006)

Seminar Presentations

International -12

1. Jyothilakshmi K, Arathy K, Anju K.S, Krishna P.B, Sruthy C.T, Maria Chacko, Abarna Asokan M.A, **Beena Mary John**, “The feasibility of using MBPVA film as a linear polarizer” international conference OMTAT-13, Kochi , Jan 3-5, 2013
2. **Beena Mary John**, Rani Joseph, K. Sreekumar, C. Sudha Kartha, “Effect of chromium doping on the diffraction efficiency of methylene blue sensitized PVA/acrylamide films”, ICOOPMA 2007, London, 30 July-3 Aug.2007
3. **Beena Mary John**, Rani Joseph, K Sreekumar, C.Sudha Kartha, “Red Sensitive Photopolymer for Permanent Holographic Storage”, Photonics 2006, Hyderabad, December 13-16, 2006
4. **Beena Mary John**, Saji John K, Rani Joseph, K Sreekumar, C.Sudha Kartha, “Improvements in the holographic performance of DCPVA films due to the incorporation of a photopolymerizable monomer”, ICOOPMA 2006, July17-22, 2006 (not presented)
5. **Beena Mary John**, K. Sreekumar, Rani Joseph, C Sudha Kartha, “Effect of Copper Chloride on the Diffraction Efficiency of MBPVA/acrylamide films”, ICOL 2005, Dehradun, Dec.12-15, 2005
6. **Beena Mary John**, Rani Joseph, K. Sreekumar, C Sudha Kartha, “Self-enhancement of Diffraction Efficiency in MBPVA/Acrylamide Films”, OMTAT-05, Kochi, October 24-27, 2005
7. C.P.Jisha, **Beena Mary John**, V.C.Kishore, V.C.Kuriakose, K.Porsezian, C Sudha Kartha, “Three dimensional Self-written optical waveguide in a photopolymer”, OMTAT-2005, Kochi, October 24-27, 2005. (*2nd best poster award*)
8. M Ushamani, **Beena Mary John**, C Sudha Kartha, K Sreekumar, Rani Joseph, “Studies on methylene blue doped poly (vinyl chloride): butyl acrylate films for holographic recording”, OPTO-Ireland 05, Dublin, 4 – 6th April 2005 (not presented)
9. **Beena Mary John**, Ushamani.M, Nisha V.S, R Joseph, K.Sreekumar C.Sudha Kartha, “MBPVA-Vinyl Acetate: A New Reusable Medium For Holographic Recording”, Photonics West 05, San Jose, 22-27th January 2005. (not presented)
10. Ushamani.M, Nisha V.S, **Beena Mary John**, K.Sreekumar C.Sudha Kartha, Rani Joseph, “Preparation and characterization of a new photopolymerizable holographic material based on polyvinyl alcohol and vinyl acetate”, MACRO-2004, Trivandrum, 12-14th Dec 2004.
11. **Beena Mary John**, Ushamani M., Nisha V.S, Rani Joseph, K.Sreekumar, C. Sudha Kartha, “Effect of electron donors on diffraction efficiency of MB PVA/PAA Blend”, APT 04, Cochin, Jan16-17, 2004.
12. Nisha V.S, Ushamani M, **Beena Mary John**, C. Sudha Kartha, K.Sreekumar, Rani Joseph, “Characterization of Eosin dye doped PVA medium for holographic recording using Ar⁺ Laser beam”, APT 04, Cochin, Jan16-17, 2004. (*2nd best poster award*)

National -11

1. **Beena Mary John**, Anju K.S, Jyothilakshmi K, Proc. National seminar on advances in nanomaterials and polymers, BMC, March 11-12, 2014
2. **Beena Mary John**, Rani Joseph, K. Sreekumar, C. Sudha Kartha, "Fabrication and Characterization of Dye Sensitized Polymer Films for Holographic Applications", NLS, Delhi, 8-10, Jan. 2009
3. C. Sudha Kartha, Rani Joseph, K. Sreekumar, **Beena Mary John**, V. Pramitha, "Studies on Indigenously Developed Highly Efficient Holographic Photopolymers", National Conference on Emerging Areas in Thin Film Science & Technology, Feb 12-14, 2009, Coimbatore, India
4. N. Poornima, R. Jayakrishnan, **Beena Mary John**, V. Pramitha, C. Sudha Kartha, Fluorescence studies on Eosin doped PVA matrix for Tunable Solid State Dye Lasers, 20th AGM- MRSI, Kolkata, India, page: 116, Feb 10-12, 2009,
5. **Beena Mary John**, Ushamani M, Rani Joseph, K.Sreekumar, C.Sudha Kartha, "Influence of butyl acrylate on the diffraction efficiency of PVC based holographic recording medium" CTMS-07, Chengannur, Kerala, 25-27 March 2007.
6. **Beena Mary John**, Pramitha V, Nimmi K.P, K.Sreekumar, Rani Joseph , C.Sudha Kartha, "A Photopolymerizable holographic recording media with spectral sensitivity in the entire visible region" 31st OSI symposium, Baroda, 1-3 March ,2007
7. **Beena Mary John**, Rani Joseph, C.Sudha Kartha, "A new self-developing and stable copper doped photopolymer system for holographic applications" 19th Kerala Science Congress, Kannur ,29-31 Jan.2007
8. **Beena Mary John**, Ushamani M, Sreekumar K, Rani Joseph, C. Sudha Kartha, "Methacrylic acid monomer for enhancing the storage life of gratings recorded on methylene blue sensitized PVA-vinyl acetate films" 17th AGM MRSI, Lucknow , 13-15 Feb 2006
9. **Beena Mary John**, Ushamani.M, Rani Joseph, K.Sreekumar C.Sudha Kartha, "Role of Vinyl Acetate Monomer in the Diffraction Efficiency of Poly (Vinyl Alcohol) Film" 16th AGM MRSI, NCL, Pune ,10-12 Feb 2005
10. **Beena Mary John**, Nisha V.S, Ushamani.M, Rani Joseph, K.Sreekumar C.Sudha Kartha, "MBPVA/ acrylamide system for holographic recording using red, green and blue lasers", 15th AGM MRSI, BHU, Varanasi ,Feb 2004
11. Nisha V.S, Ushamani.M, **Beena Mary John**, K.Sreekumar, C. Sudha Kartha, Rani Joseph, "Diffraction efficiency measurement on Eosin doped Poly (vinyl alcohol) using 488nm line of Ar⁺ ion laser", 15th AGM MRSI, BHU, Varanasi, Feb 2004

Awards and Honours

- **Best PhD Thesis award in Optics by Indian Laser Association , 2008 (national level)**

Professional Membership

MRSI –(Material Research Society of India) , Life Member

ILA- Indian Laser Association, Life Member

APT- Academy of Physics Teachers, Life Member

Consultancy/Projects undertaken

1. Technology Transfer- Technology of preparation of two photopolymer films has transferred to M/S. Light Logics Holography & Optics. Pvt. Ltd., Trivandrum, India, Trade name: Light Logics photopolymer 1 & 2

2. UGC Minor Project- Fabrication of an Eco-friendly Polymer Based Polarizer, UGC Reference No: MRP(S)-0835/13-14/KLMG039/UGC-SWRO dated 28-03-2014

Tenure of the project: From 28/03/2014 to 27/03/2016 (2 years), Amount – 2lakhs,
Project implemented at Bharata Mata College, Thrikkakara