Faculty Profile

Name : Rajesh K.B
Designation : Associate Professor
Address : Department Of Physics
Chikkanna
Government Arts
College, Tiruppur
Tamilnadu, India
641602

Contact Number : +91 9942460031
Email ID : rajeskb@gmail.com
Date of Joining in Collegiate Education : 10/03/2011
Associate Professor of Physics
Tamilnadu Government Collegiate
EducationService
Date of Joining in the Present College : 14/06/2012
Academic Profile :

Degree	Institute/College	University	Period
B.Sc. Physics	Government Arts College, Coimbatore	Bharathiar University	1999-2002
M.Sc. Physics	University Department, Bharathiar University Coimbatore	Bharathiar University	2002-2004
Ph.D. Physics	University Department, Periyar University Salem	Periyar University	2004-2008

Teaching Experience :

i) **Total** :14 **Years 11** **Month**
ii) **UG** :14 Years 11 Month
iii) **PG** :14 Years 11 Month

Name of the college	Position held	Period
Tamilnadu Government Collegiate Education Service	Assistant Professor of Physics	2011 till date
Anna University of Technology, Tirunelveli	Assistant Professor of Physics	2008-2011

Honors and Research Awards: University Research Fellowship of Periyar University (2004-2008)

Field of Interest **:** Nano Optics, Computational Optics, Singular Optics (Optical Vortex), High Numerical Aperture Focusing, Polarization Engineering.

Photonics, Surface Plasmon Resonance (SPR).

i) **Teaching** **:** 14 Years 11 month.

ii) **Research** **:** 20 years.

iii) **Proficiency** **:** Maple, MATLAB, DiffractMOD

iv) Research Guidance

Guidance Number **:** Periyar University.

Bharathiar University (16628/A2/2012. Dated: 03/09/2012).

(If have more than one university, given them against university name)

S. No	M.Phil/Ph.D	Name of the Student	Thesis Title	Completed/ongoing
1.	**Ph.D.**	G. Alagu Vibisha		Ongoing
2.	**Ph.D.**	V. Ashwaanth		Ongoing
3.	**Ph.D.**	M. Udhayakumar	Focal Engineering for Manipulation of Magnetic Field of a Tightly Focused Laser Beam	Completed - 2022
4.	**Ph.D.**	M. Lavanya	Theoretical Investigation on Effect of Dielectric Interface on Tightly Focused Beam.	Completed - 2021
5.	**Ph.D.**	J. William Charles	Investigation of Focal Properties of Azimuthally Polarized Beam Based on Vector Diffraction Theory	Completed - 2021
6.	**Ph. D.**	R. C. Saraswathi	Investigation On Tight Focusing Properties Of Lorentz–Gauss Beam Based On Vector Diffraction Theory	Completed (Periyar University) 2016
7.	**Ph. D.**	R.Chandrasekaran	Focal Engineering For Nano Scale Application Using Cylindrical Vector Beam	Completed (Periyar University) 2017
8.	**M.Phil.**	G. Alagu Vibisha	Designing and Optimizing Novel Hybrid Structure SPR Sensor for Enhanced Performance	Completed - 2023
9.	**M.Phil.**	M. Udhayakumar	Investigation On Focal Properties Of High Na Parabolic Mirror Using Vector Diffraction Theory	Completed -2015

Funded Projects :

S. No	Title of Project	Name of the funding Agency & Amount	Status
1	Focal Engineering for ultrafast all optical magnetic recording with sub wavelength scale resolution	DST SERB-YSS **Rs. 19,53,967/-**	Completed
2.	Designing Phase Filters to Tailor Sub Wavelength Scale Energy Flux and Transverse Spin Density Structures using Vector Diffraction Theory	DST SERB **Rs. 25,46,808**	Ongoing

Membership in Professional Bodies :

- Fellow Member- Optical Society of India (OSI).
- Life Member-Swadeshi Science Movement of India (SSMD)
- Life Member - Photonic Society of India (PSI).
- Member – Optical Society Of America.

Research Publications **144**

Research Papers : (Annexure – I)

i) **Book/Book Chapters** : **02**

ii) **Patent** : NIL

National and International Conferences : (Annexure – II)

i) **Participated** **62**

ii) **Paper Presented** **50**

iii) **Poster Presented** **09**

Conference/Seminars Organized **04**

S.No	Conference/Seminars Organized	Year
1	**International Day of Light** "International Webinar Lecture Series on Laser, Optics & Photonics", Department of Physics, Chikkanna Government arts College, Tiruppur, Tamil Nadu, India -641602 . **Dated: 11-13.06.2020**	**2020**
2	**National Seminar on Current Innovation & Future Perspective in Nano science and Technology (NSNST- 2019),** Department of Physics, Chikkanna Government arts College, Tiruppur, Tamil Nadu, India -641602. **Dated: 11.02.2019**	**2019**
3	**National Conference on Emerging Sensor Devices & Materials & Technologies (NCESDMT- 2017),** Department of Physics, Chikkanna Government arts College, Tiruppur, Tamil Nadu, India -641602 . **Dated: 19-20.06.2017**	**2017**
4	**TNSCST Workshop on Optics 2014,** Department of Physics, Chikkanna Government arts College, Tiruppur, Tamil Nadu, India -641602	**2014**

Workshop attended :

Resource Person/Invited Lectures : (Annexure – III)

Faculty Development Programs Attended :

Course	University/Institute	Subject	Period
Orientation Course	Academic Staff College, University of Madras, Chennai	Physics	04.05.2011 to 02.06.2011 (28 Days
Refresher Course	Academic Staff College, Bharathiar University, Coimbatore	Physics	03.12.2014 to 23.12.2014 (21 Days)
Refresher Course	Academic Staff College, Bharathiar University, Coimbatore	Physics	23.11.2018 to 13.12.2018 (21 Days)
Refresher Course	Teaching Learning Centre, Ramanujam College University of Delhi	Advanced Research Methodology Tools And Techniques	30.01.2021 to 14.02.2021 (16 Days)
Refresher Course	Teaching Learning Centre, Ramanujam College University of Delhi	Physics	10.04.2022 to 24.04.2022 (15 Days)

Academic Activities :

i) Subject Handled **: UG and PG**

ii) Class Advisor **: UG and PG**

iii) Special Coaching

iv) Student Community Beneficial Activities : NSS (Unit-1) -Anna University of Technology Tirunelveli/2009-2011

v) Co-curricular and extracurricular activitiesProfessional Activities :

i) Editorial Member - Frontiers in Photonics

ii) Reviewer

- Reviewer of various OSA journals, Optics Laser &Technology, Optics Communication,
  Journal of Optics A, Optical Engineering

iii) Board of Studies/UR

- Member-Board of Studies in Nano Technology –Anna University of Technology Tirunelveli/2009-2011
- Member-Board of Studies in Physics UG/PG, K.S.Rangasamy College of Arts andScience, Namakkal.2018 Onwards
- Member-Board of Studies in Physics UG/PG, Government Arts College , Coimbatore- 641018 .2021 Onwards
- Member-Board of Studies in Physics UG/PG, Bharathiar University, Coimbatore- 641046 .2022 Onwards

iv) Examiner/Scrutiny

- Member-Panel of Question Paper Setters/External Examiner(Theory/Practicals) ofVarious Universities/Autonomous Colleges-2011 Onwards

National/ International Collaborators :

Sl. No	Collaborating Scientists	Collaborating Agency Status
1	**Dr.Zbigniew Jaroszewicz**	Institute of Applied Optics, Department of Physical Optics, Warsaw, Poland
2	**Dr. Dhayalan Velauthapillai**	Faculty of Engineering and Science, Western Norway University of Applied Sciences, 5063 Bergen, Norway
3	**Dr. Abdelmajid Belafhal**	Laboratory of Nuclear, Atomic and Molecular Physics, Department of Physics, Faculty of Sciences, Chouaïb Doukkali University, Morocco
4	**Dr. A.Mohammed Musthafa**	Department of General Studies (Physics Group), Jubail University College (Male Branch), Royal Commission of Jubail, Kingdom of Saudi Arabia
5	**Dr.C.S.Naryanamurthy**	Applied and Adaptive Optics Laboratory, Department of Physics, Indian Institute of Space Science and Technology, Thiruvananthapuram, Kerala 695547, India
6	**Dr.P. Senthilkumaran**	Professor Indian Institute of Technology Delhi Hauz Khas,New Delhi-110016
7	**Dr.L N Hazra**	Department of Applied Optics and Photonics, University of Calcutta, 92 A.P.C. Road, Kolkata 700 009, India
8	**Dr.Rakesh Kumar Singh**	Department of Physics,Indian Institute of Technology (BHU) India
9	**Dr.Rajan Jha**	Nano Photonics and Plasmonics Laboratory, School of Basic Sciences, Indian Institute of Technology Bhubaneswar, India

Annexure – I

BOOK/ BOOK CHAPTERS

S.No	Title	Year
1.	Y.P. Arul Teen, NimmyLazer, J.M. Aravind and **Rajesh K. B.,** Experimental Investigation of Pulse Modulation Schemes in Free Space Optical Communication under Turbulence**,** Smart Intelligent Computing and Communication Technology, IOS Press **, ISBN : 978-1-64368-202-0**	**2021**
2.	Y.P. Arul Teen, NimmyLazer, J.M. Aravind and **Rajesh K. B,** Performance Analysis of Different Wavelength Gaussian Laser Beam in Free Space Optical Communication,Recent Advancements	**2020**

	in Engineering and Technology, Avin Books and Publishers, New Delhi, **ISBN: 978-81-946168-3-2**	

ARTICLE PAPERS

S.No	Title	Year
1	**K. B. Rajesh,** M. Muthumanikkam, G. Alagu Vibisha, M. C. L. Prabhakar, P. Suresh, Numerical Investigation on High-Performance Cu-Based Surface Plasmon Resonance Sensor for Biosensing Application **https://doi.org/10.3390/s23177495**	**2023**
2	**K. B. Rajesh,** M. Muthumanicam, M. C. L. Prabhakar, G. Alagu Vibisha, P. Suresh, Z. Jaroszewicz, Theoretical analysis of a high-performance surface plasmon resonance biosensor using BlueP/WS2 over a Cu-Pt bimetallic layer **https://doi.org/10.4302/plp.v15i2.1206**	**2023**
3	Generation of sub-wavelength longitudinal magnetization needle and multiple longitudinal spots using circularly polarized beam through an annular walsh function filter D Thiruarul, JW Charles, M Lavanya, **KB Rajesh,** Z Jaroszewicz Journal of Optics, 1-10 ***https://doi.org/10.1007/s12596-023-01428-y***	**2023**
4	Tight Focusing of a higher order Radially Polarized sinh-Gaussian beam Transmitting through Cosine Phase Plate RV Kumar, K Prabakaran, **KB Rajesh,** AM Musthafa, V Aroulmoji International journal of advanced Science and Engineering 10 (1), 3329-3335 ***https://doi.org/10.29294/IJASE.10.1.2023.3329-3335***	**2023**
5	Generating novel focal patterns for radial variant vector beam focusing through a dielectric interface M Lavanya, D Thiruarul, **KB Rajesh**, Z Jaroszewicz Photonics Letters of Poland 15 (1), 7-9 ***https://doi.org/10.4302/plp.v15i1.1198***	**2023**
6	Generation of multiple focal pattern via phase modulated radial and azimuthal variant vector beam. Thiruarul, D., Charles, J.W., Lavanya, M., **Rajesh, K.B.** et *al.* *Opt Quant Electron* **55**, 395 (2023). ***https://doi.org/10.1007/s11082-023-04654-7***	**2023**
7	High performance SPR biosensor using Cu-Pt bimetallic layers and 2D materials. P Maheswari, V Ravi, **KB Rajesh**, SMH Rahman, R Jha Digest Journal of Nanomaterials & Biostructures (DJNB) 18 (1) ***https://doi.org/10.15251/DJNB.2023.181.221***	**2023**
8	Vortex carrying circular airy beam in free space optics and aberration effects	**2023**

	in turbulent atmosphere N Lazer, YPA Teen, **KB Rajesh** Optical and Quantum Electronics 55 (1), 63 ***https://doi.org/10.1007/s11082-022-04298-z***	
9	Generation of Multiple Focal Pattern via Phase Modulated Radial Azimuthal variant Vector Beam. Thiruarul. D., Charles. J. W., Lavanya. M., **KB Rajesh.,** R Jha J.Environ. NanoTechol 11 (3), 1-10 ***DOI:10.1007/s12596-022-01010-y***	**2023**
10	Theoretical Design of Highly Sensitive Ag-Ni-Thiol-based Hybrid SPR Biosensor for Viral Detection M Muthumanicam, P Maheswari, A Vibisha, CL Prabhakar, S Ponnan, Z Jaroszewicz**, KB Rajesh** J. Environ. Nanotechnol 12 (3), 14-18 ***https://doi.org/10.13074/jent.2023.09.233472***	**2023**
11	Engineering axially polarized sub-wavelength scale focal structures using annular Walsh filter N Umamageswari, D Thiruarul, M Lavanya, JW Charles, **KB Rajesh** Journal of Optics, 1-8 ***https://doi.org/10.1007/s12596-022-01010-y***	**2023**
12	Generation of light sheet focal patterns for light-sheet fluorescence microscopy via phase modulated radial and azimuthal variant vector beam D Thiruarul, JW Charles, M Lavanya, **KB Rajesh,** Z Jaroszewicz ***https://doi.org/10.21203/rs.3.rs-2215617/v1***	**2022**
13	Generation of axial multi foci pattern D Thiruarul, JW Charles, M Lavanya, **KB Rajesh**, Z Jaroszewicz ***https://doi.org/10.21203/rs.3.rs-2144299/v1***	**2022**
14	Generation of axially splitted ultra-long multiple optical needles/optical tubes using generalized cylindrical vector Bessel Gaussian beam phase modulated by annular Walsh … D Thiruarul, JW Charles, M Lavanya, **KB Rajesh**, Z Jaroszewicz Optical and Quantum Electronics 54 (10), 654 ***https://doi.org/10.1007/s11082-022-04037-4***	**2022**
15	Focusing Properties of Spirally Polarized Annular Multi Gaussian Beam by High NA Lens M Senthilkumar, **K B Rajesh**, M Udhayakumar, K Prabakaran, M Lavanya International journal of advanced Science and Engineering 9 (1), 2607-2616 ***https://doi.org/10.29294/IJASE.9.1.2022.2607-2616***	**2022**
16	Generation of 1D array of focal segments using spirally polarized beam and Complex Phase Filter M Senthilkumar, M Udhayakumar, M Lavanya, G Mahadevan, **KB Rajesh**, ... Optics & Laser Technology 149, 107869 ***https://doi.org/10.1016/j.optlastec.2022.107869***	**2022**
17	Orbital Angular Momentum Carried by ShGB Vortex Beam for FSO and its Aberration Effects N Lazer, YPA Teen, **KB Rajesh** ***https://doi.org/10.21203/rs.3.rs-1512547/v1***	**2022**
18	Sensitivity Enhancement of Surface Plasmon Resonance-based Biosensor using Aluminium-Cobalt-Tungsten Disulfide-Graphene Heterostructure GA Vibisha, MG Daher, SMH Rahman, Z Jaroszewicz, **KB Rajesh**, R Jha J. Environ. Nanotechnol 11 (4), 05-13 ***https://doi.org/10.13074/jent.2022.12.224462***	**2022**

19	High Performance bimetallic (Cu-Co) surface plasmon resonance sensor using hybrid configuration of 2D materials P Maheswari, V Ravi, **KB Rajesh**, R Jha J. Environ. Nanotechnol 11 (3), 1-10 ***https://doi.org/10.13074/jent.2022.09.223455***	**2022**
20	Sensitivity enhancement of SPR sensor using Ni/ZnO nanocomposite assisted with graphene P Maheswari, S Subanya, A Nisha, V Ravi, **KB Rajesh**, R Jha Optical and Quantum Electronics 53, 1-17 ***https://doi.org/10.1007/s11082-021-03379-9***	**2021**
21	Programmable multiplier circuit designed for quantum-dot cellular automata devices YPA Teen, M Subha, SH Shabeer, **KB Rajesh** Materials Today: Proceedings 37, 1295-1300 ***https://doi.org/10.1016/j.matpr.2020.06.464***	**2021**
22	Energy flux density for higher-order cylindrical vector vortex beam tightly focused through a dielectric interface M Lavanya, D Thiruarul, **KB Rajesh**, G Mahadevan, D Velauthapillai, ... Journal of Optics 50 (4), 548-558 ***https://doi.org/10.1007/s12596-021-00691-1***	**2021**
23	Ag-Ni bimetallic film on CaF2 prism for high sensitive surface plasmon resonance sensor A Nisha, P Maheswari, S Subanya, PM Anbarasan**, KB Rajesh,** ... Photonics Letters of Poland 13 (3), 58-60 ***https://doi.org/10.4302/plp.v13i3.1114***	**2021**
24	Ag-Ni bimetallic film on CaF2 prism for high sensitive surface plasmon resonance sensor A Nisha, P Maheswari, S Subanya, PM Anbarasan, **KB Rajesh**, ... Photonics Letters of Poland 13 (3), 58-60 ***https://doi.org/10.4302/plp.v13i3.1114***	**2021**
25	Sensitivity enhancement of surface plasmon resonance sensor using Al–Au–$BaTiO_3$–Graphene layers NV Suresh, **KB Rajesh**, TVS Pillai Journal of Optics 50, 152-159 ***https://doi.org/10.1007/s12596-021-00694-y***	**2021**
26	Creation of one dimensional array of magnetic field by tightly focused phase modulated azimuthal and radial variant vector beam M Udhayakumar, M Lavanya, D Thiruarul, **KB Rajesh**, Z Jaroszewicz Optics Communications 482, 126594. ***https://doi.org/10.1016/j.optcom.2020.126594***	**2021**
27	Multiple focal structure generation of incident beam in the focal region under tight focusing P Suresh, U Muthuraman, M Revathi, **KB Rajesh**, U Saravanakumar, ... Materials Today: Proceedings 37, 3775-3778 ***https://doi.org/10.1016/j.matpr.2020.11.034***	**2021**
28	Generation of ultra-long multiple optical tubes using annular Walsh function filters D Thiruarul, **KB Rajesh,** M Lavanya, G Mahadevan, D Velauthapillai, ... Optical and Quantum Electronics 52, 1-14 ***https://doi.org/10.1007/s11082-020-02507-1***	**2020**
29	SPR Based Bio Sensors Using Black Phosphorus-A Boon To Biomedical Applications GS Deepapriya, PV Nivethitha, S Subanya, **KB Rajesh**	**2020**

	Chikkanna Govt. Arts College, Tiruppur	

30	Theoretical Study on Surface Plasmon Resonance Based Fiber Optic Sensors using Platinum-TMDC Bilayers S Subanya, **KB Rajesh** - 2020	**2020**
31	High Performance Spr Based Fiber Optic Sensors Using Mxene A Balamurugeshwari, PV Nivethitha, S Subanya, **KB Rajesh** Chikkanna Govt. Arts College, Tiruppur	**2020**
32	Sensitivity enhancement of surface plasmon resonance sensor using hybrid configuration of 2D materials over bimetallic layer of Cu–Ni G AlaguVibisha, JK Nayak, P Maheswari, N Priyadharsini, A Nisha, **K B Rajesh**... Optics Communications 463, 125337 *https://doi.org/10.1016/j.optcom.2020.125337*	**2020**
33	Focal hole shifting of azimuthally polarized sinh Gaussian beam using cosine phase filter K Prabakaran, V Karthik, **K Rajesh**, P Anbarasan, V Aroulmoji, ... International journal of advanced Science and Engineering 6, 1476-1481 ***10.29294/ijase.6.4.2020.1476-1481***	**2020**
34	Tight focusing properties of phase modulated azimuthally polarized doughnut Gaussian vortex beam by high NA parabolic mirror N Umamageswari, M Lavanya, M Udhayakumar, **KB Rajesh**, ... Materials Today: Proceedings 26, 3539-3543 ***https://doi.org/10.1016/j.matpr.2019.07.209***	**2020**
35	S. Seethalakshmi, M. Udhayakumar, N. Priyadharsini, **K.B. Rajesh**, Z. Jaroszewicz. Generation of sub-wavelength longitudinal magnetic probe andmultiple spots using circularly polarized annular multi-Gaussian beam Journal of Optics , 1–8, (2019) ***https://doi.org/10.1007/s12596-019-00571-9***	**2019**
36	K.Prabakaran, **K.B.Rajesh**, V.Hariharan, A. Mohamed Musthafa, M.Velu,V.Aroulmoji, Focal Shifting of Double Ring Shaped Radially Polarized MultiGaussian Beam Int. J. Adv. Sci. Eng.6 .1 1193-1199 (2019) ***https://doi.org/10.29294/IJASE.6.1.2019.1193-1199***	**2019**
37	N. Umamageswari, M. Lavanya, M.Udhayakumar, **K.B.Rajesh**,Z.Jaroszewicz. Tight Focusing Properties of Phase Modulated AzimuthallyPolarized Doughnut Gaussian Vortex Beam By High NA Parabolic Mirror Materilas Today Proceedings,(2019) ***https://doi.org/10.1016/j.matpr.2019.07.209***	**2019**
38	M.Senthil Kumar, **K.B.Rajesh,** M.Udhayakumar, G.Mahadevan. Focusing properties of spirally polarized sinh Gaussian beam. Optics & Laser Technology 111:623-628 (2019) *https://doi.org/10.1016/j.optlastec.2018.10.048*	**2019**

39	A.Nisha, P.maheswari, P.M.Anbarasan,K.B.Rajesh, Z.Jaroszewicz. Sensitivity enhancement of surface plasmon resonance sensor with 2D material covered noble and magnetic material (Ni) Optical and Quantum Electronics 51(1) (2019). *https://doi.org/10.1007/s11082-018-1726-3*	**2019**

40	K.Prabakaran, R.Loagnathan, A.Kesavan, **K.B.Rajesh** Tight Focusing Properties of Radially Polarized Doughnut Gaussian Beam through a DielectricInterface Int. J. Adv. Sci. Eng. Vol.5 No.2 896-900 (2018) *https://doi.org/10.29294/IJASE.5.2.2018.896-900*	**2018**
41	R.Murugesan, D.ThiruArul, **K.B.Rajesh** , M.Lavanya, G.Mahadevan Tight Focusing Properties of Circularly Polarized Annular Multi-Gaussian Beam through a Uniaxial Birefringent Crystal Int J Opt Photonic Eng 3:011 (2018), *https://doi.org/10.35840/2631-5092/4511*	**2018**
42	K.Prabakaran, **K.B.Rajesh**, V.Hariharan, P.Sangeetha, Vincent Aroulmoji, A.M. Musthafa Focal Shifting of Radially Polarized Laguerre Bessel GaussianBeam with Radial Cosine Phase Plate Int. J. Adv. Sci. Eng. Vol.4 No.4 740- 745 (2018), *https://doi.org/10.29294/IJASE.4.4.2018.740-745*	**2018**
43	Y.P.Arul Teen, T.Nathiyaa, , **K.B.Rajesh**, S.Karthick Bessel Gaussian Beam Propagation through Turbulence in Free Space Optical Communication Optical Memory and Neural Networks 27(2):81-88 (2018) *https://doi.org/10.3103/S1060992X18020029*	**2018**
44	K.Prabakaran, **K.B.Rajesh**, R.Selvam,M.Jayaprakash, Vincent Aroulmoji Tight Focusing Properties of Phase Modulated Longitudinally Polarized Doughnut Gaussian Beam. Int. J. Adv. Sci. Eng. Vol.4 No3 651-655 (2018), ISSN 2349 5359. *https://doi.org/10.29294/IJASE.4.3.2018.651-655*	**2018**
45	M.Udhayakumar, K.Prabakaran, **K.B.Rajesh**, Z.Jaroszewicz, A.Belafhal Generating sub wavelength pure longitudinal magnetization probe and chainusing complex phase plate. Optics Communications 407:275 (2018) *https://doi.org/10.1016/j.optcom.2017.09.007*	**2018**
46	N.Umamaheswari, **K.B.Rajesh,** M.Udhayakumar, K.Prabakaran, Z.Jaroszewicz. Tight focusing properties of spirally polarized LG (1,1)* beamwith High NA Parabolic mirror. Optical and Quantum Electronics 50(2) (2018) *https://doi.org/10.1007/s11082-018-1320-8*	**2018**
47	M.Udhayakumar, K.Prabakaran, **K.B.Rajesh** Z.Jaroszewicz, A.Belafhal, V.Dhayalan Generation of ultra-long pure magnetization needle and multiple spots by phase modulated doughnut Gaussian beam. Optics & Laser Technology 102:40-46 (2017) *https://doi.org/10.1016/j.optlastec.2017.12.008*	**2018**

48	C.Mohana sundaram, K.Prabakaran, M.Udhayakumar, **K.B.Rajesh,** G.Mahadevan. Effect of annular obstruction on tight focusing properties of azimuthally polarized sinh Gaussian beam Global Journal of Pure and Applied Mathematics 13(5):208-214(2017)	**2017**
49	M.Lavanya, **K.B.Rajesh**, M.Udhayakumar, K.Prabakaran Tight Focusing properties of Phase Modulated Azimuthally Polarized Laguerre- Bessel - Gaussian Beam Global Journal of Pure and Applied Mathematics 13(5):215-222 (2017)	**2017**
50	J.Amala,M.Lavanya,**K.B.Rajesh**,M.Udhayakumar,Z.Jaroszewicz,V.Dhayalan Tight Focusing Properties of Azimuthally Polarized Pair of Vortex Beams through a Dielectric Interface Chinese Physics Letters 34(7):074209(2017) *https://doi.org/10.1088/0256-307X/34/7/074209*	**2017**
51	N.Umamaheswari, M.Udhayakumar, **K.B.Rajesh**, Z. Jaroszewicz Focal properties of cylindrically polarized axisymmetric Bessel-modulatedGaussian beams by a high NA parabolic mirror. Optical and Quantum Electronics 49(5)(2017). *https://doi.org/10.1007/s11082-017-1026-3*	**2017**
52	K.Prabakaran, P.Sangeetha, V.Karthik, **K.B.Rajesh**, A.Mohammed MusthafaTight Focusing Properties of Phase Modulated Radially Polarized Laguerre Bessel Gaussian Beam Chinese Physics Letters 34(5):054203(2017) *https://doi.org/10.1088/0256-307X/34/5/054203*	**2017**
53	R.Murugesan, N.pasupathy, D.ThiruArul, **K.B.Rajesh**, V.Dhayalan Generating multiple focal structures with circularly polarized double ring shaped beam and axial birefringence J Opt, The Optical Society of India (2017) Springer https://doi.org/10.1007/s12596-017-0392-3,	**2017**
54	R.Murugesan, N.pasupathy, M.Udhayakumar, K.B.Rajesh, Z.Jaroszewicz Properties of Surface Plasmon Polaritons Excited by Radially Polarized Sinh Gaussian Beams, Plasmonics13(5):1-7 (2017). https://doi.org/10.1007/s11468-017-0526-0	**2017**
55	R.Chandrasekaran, K. Prabakaran, K.B.Rajesh. Generation of multiple focal spot and focal hole segments using phase modulated cylindrically polarized annular multi-Gaussian beam. Optical and Quantum Electronics 48(1) (2016). https://doi.org/10.1007/s11082-015-0311-2	**2016**
56	C.Mohana sundaram, K.Prabakaran, P.M.Anbarsan, K.B.Rajesh, A.M. Musthafa ,Vincent Aroulmoji, Tight focusing properties of phase modulated transversely polarized sinh Gaussian beam Optical and Quantum Electronics 49(1):11(2016) . https://doi.org/10.1007/s11082-016-0857-9	**2016**
57	J.Amala, M.Udhayakumar, K.B.Rajesh, Z.Jaroszewicz, T.V.S Pillai Generating multiple focal structures with high NA parabolic mirror using azimuthally polarized pair of vortices. Opticaland Quantum Electronics 48(11):521 (2016) https://doi.org/10.1007/s11082-016-0790-9	**2016**
58	J.Amala, M.Udhayakumar, K.B.Rajesh, T.V.S Pillai, Z.JaroszewiczTight Focusing Properties of Radially Polarized Gaussian Beams with Pair of Vortices, Chinese Physics Letters 33(12):124206 (2016) https://doi.org/10.1088/0256-307X/33/12/124206	**2016**

59	K.Prabakaran,K.B.Rajesh, S.Sumathira, M.D.Bharathi,R.Hemamalini, A.M. Musthafa, V.Arulmoji. Creation of Multiple Subwavelength Focal Spot Segments Using Phase Modulated Radially Polarized Multi Gaussian Beam Chinese Physics Letters 33(9):094203 (2016). https://doi.org/10.1088/0256-307X/33/9/094203	**2016**
60	G.Therese Anitha, N.Umamaheswari, K.Prabakaran, T.V.S Pillai, K.B.Rajesh Effect of coma on tightly focused cylindrically polarized vortex beams Optics & Laser Technology 76:1-5 (2016). https://doi.org/10.1016/j.optlastec.2015.07.002	**2016**
61	C.Mohana sundaram, K.Prabakaran, K.B.Rajesh, M.Udhayakumar P.M.Anbarsan, A.M. Musthafa Tight focusing properties of phase modulated azimuthally polarized doughnut Gaussian beam Optical and Quantum Electronics 48(11):507 (2016) https://doi.org/10.1007/s11082-016-0765-x	**2016**
62	K.Lalithambigai, P.M.Anbarsan, K.B.Rajesh Creation of Movable Optical Chain by High NA Lens with Complex Phase Annular Obstruction, Advanced Science, Engineering and Medicine 8(7):526- 532 (2016) https://doi.org/10.1166/asem.2016.1888	**2016**
63	C.Mohana sundaram, K.Prabakaran, P.M.Anbarsan, K.B.Rajesh, A.M. Musthafa. Creation of Super Long Transversely Polarized Optical Needle Using Azimuthally Polarized Multi Gaussian Beam Chinese Physics Letters 33(6):064203 (2016). https://doi.org/10.1088/0256-307X/33/6/064203	**2016**
64	K.Prabakaran, K.B.Rajesh, V.Hariharan, V.Arulmoji, P.M.Anbarsan, A.M. Musthafa. Creation of Subwavelength focal spot segment using longitudinally polarized multi Gaussian beam. Int. J. Adv. Sci. Eng. Vol. 2 No.4 164-167 (2016). https://doi.org/10.1088/0256-307X/33/9/094203	**2016**
65	R.Chandrasekaran, K. Prabakaran, K.B.Rajesh, A.M. Musthafa, V.Ravi Tight focusing properties of cylindrically polarized annular multi-Gaussian beam Optik - International Journal for Light and Electron Optics 127(19) (2016). https://doi.org/10.1016/j.ijleo.2016.05.033	**2016**
66	V Senthil Kumar, M.Udhayakumar, J W Charles, K.B. Rajesh Effect of primary spherical aberration on tightly focused linearly polarized Lorentz Gaussian beam J. Environ. Nanotechnol 5 (1), 13-16 (2016)	**2016**
67	K. Prabakaran, K.B.Rajesh, T.V.S Pillai, R.Chandrasekaran, R.C .Saraswathi Generation of multiple focal spot using phase modulated radially polarized TEM11 * mode beam J Opt 44(4):311–316 (2015) https://doi.org/10.1007/s12596-015-0309-y	**2015**
68	K. Prabakaran, R.Selvam, K.B.Rajesh, P.M.Anbarsan, P.M.Anbarsan Tight Focusing Properties of Phase Modulated Azimuthally Polarized Beam with High NA Lens Axicon , International Journal of Advanced Trends in Computer Science and Engineering 2(1):58-61 (2015) https://doi.org/10.29294/IJASE.4.3.2018.651-655	**2015**
69	Y.P.Arul Teen, P.Suresh, T.Nathiyaa, , K.B.Rajesh, T.V.S. Pillai Study on Intensity distributions of a BG beam with effect of tilt and astigmatism aberration in a turbulent atmosphere Optik - International Journal for Light and Electron Optics 126(23) (2015) https://doi.org/10.1016/j.ijleo.2015.07.137	**2015**
70	K.Lalithambigai, P.M.Anbarsan, K.B.Rajesh Formation of optical needle by high NA lens axicon with dedicated complex spiral phase mask. Optical and Quantum Electronics 47(7):2017-2025(2015). https://doi.org/ 10.1007/s11082-014-0075-0	**2015**

71	M.Lavanya, M.Udhayakumar, S.Shanmugapriya, K.B.Rajesh Generation of super long dark channel using annular multi-Gaussian beam Proceedings of SPIE - The International Societyfor Optical Engineering 9654 (2015) https://doi.org/10.1117/12.2181762	**2015**
72	K. Prabakaran, K.B.Rajesh, T.V.S. Pillai. Generation of multiple subwavelength focal hole segments using azimuthally polarized hollow Gaussian beam Optical and Quantum Electronics 47(5):1283-1289(2015).https://doi.org/10.1007/s11082-014-9990-3	**2015**

73	P.Suresh, C.Mariyal, K.Gokulakrishnan, **K.B.Rajesh**, T.V.S. Pillai, Z. Jaroszewicz Investigating the focus shaping of the TEM11* beam with radial varying polarization Optik - International Journal for Light and Electron Optics 126(18) (2015) *https://doi.org/10.1016/j.ijleo.2015.05.001*	**2015**
74	K.Lalithambigai, P.M.Anbarsan, **K.B.Rajesh**. Creation of super-length optical tube by phase modulated azimuthally polarized beam with multi-zone phase filter. Optik - International Journal for Light and Electron Optics 126(5) (2015). *https://doi.org/10.1016/j.ijleo.2015.02.009*	**2015**
75	M.Udhyakumar, K.Prabakaran, Haresh M Pandya, **K.B.Rajesh** Generation of subwavelength focal hole segment using azimuthally polarized annular Multi Gaussian bean by high NA parabolic mirror. J. Environ. Nanotechnol 3, 31-34 (2014) *https://doi.org/10.13074/jent.2014.12.144127*	**2014**
76	K.Lalithambigai, P.M.Anbarsan, **K.B.Rajesh** Generation of ultra-long focal depth by tight focusing of double-ring-shaped azimuthally polarized beam Journal of Optics (Springer) 43(4):278–283, https://doi.org/ 10.1007/s12596-014-0216-7.	**2014**
77	K.Prabakaran, **K.B.Rajesh**,T.V.S. Pillai Creation of multiple subwavelength focal hole segments using azimuthally polarized hollow Gaussian beam Opt Quant Electron (2014) 47: 128 https://doi.org/10.1007/s11082-014-9990-3	**2014**
78	K.Gokulakrishnan, P.Suresh, C.Mariyal,T.V.S. Pillai, **K.B.Rajesh** Tight focusing effect of annular obstructed Bessel-modulated Gaussian beam Optik - International Journal for Light and Electron Optics 125(21):6599-6601(2014) https://doi.org/10.1016/j.ijleo.2014.07.081	**2014**
79	K. Prabakaran, **K.B.Rajesh**. Generation of sub wavelength focal spot with large depth of focus generated by radially polarized beam Optik - International Journal for Light and Electron Optics 125(23) (2014) *https://doi.org/10.1016/j.ijleo.2014.08.086*	**2014**
80	K. Prabakaran, P.M.Anbarsan ,**K.B.Rajesh**. Tight focusing of phase modulated radially polarized hollow Gaussian beam using complex phase filter Optik - International Journal for Light and Electron Optics 125(23) (2014) *https://doi.org/10.1016/j.ijleo.2014.08.057*	**2014**
81	K. Prabakaran, **K.B.Rajesh**, T.V.S. Pillai. Focal shifting of transversely polarized beam using cosine phase plate Optik - International Journal for Light and Electron Optics 125(21):6550–6553 (2014) *https://doi.org/10.1016/j.ijleo.2014.06.168*	**2014**

82	K.Lalithambigai, P.M.Anbarsan, **K.B.Rajesh**. Generation of needle of transversely polarized beam using complex spiral phase mask Optical and Quantum Electronics 47 (5), 1027-1033 (2015) *https://doi.org/10.1007/s11082-014-9958-3*	**2014**
83	R.C.Sarsawathi, K. Prabakaran, K.B.Rajesh, Z. Jaroszewicz , Tight focusing properties of radially polarized Lorentz–Gaussian beam Optik-International Journal for Light and Electron Optics 125 (18), 5339-5342 (2014) https://doi.org/10.1016/j.ijleo.2014.06.058	**2014**
84	K.Gokulakrishnan, P.Suresh, A.Jeyamurugan,T.V.S. Pillai, K.B.Rajesh, M.Vijayaraj. Effect of annular apodization and pupil beam parameter in the focal region of high NA lens. Optik - International Journal for Light and Electron Optics 125(19)(2014). https://doi.org/10.1016/j.ijleo.2014.06.080	**2014**
85	K.Lalithambigai, P.M.Anbarsan, K.B.Rajesh., Formation of multiple focal spots using a high NA lens with a complex spiral phase mask Physica Scripta 89 (7), 075501 (2014). https://doi.org/10.1088/0031-8949/89/7/075501	**2014**
86	M.Lavanya, K. Prabakaran, K.B.Rajesh. M.Udhayakumar, Effect of dielectric interface on the tight focusing properties of radially polarized annular multi Gaussian beams. Optical and Quantum Electronics 47 (3), 587-593 (2014). https://doi.org/10.1007/s11082-014-9934-y	**2014**
87	K.Gokulakrishnan, P.Suresh, C.Mariyal,T.V.S. Pillai, K.B.Rajesh Tight focusing effect of annular obstructed incident beam in the focal region of high NA lens, Optik, 125, 17, (2014), 4652-4654 https://doi.org/10.1016/j.ijleo.2014.05.028	**2014**
88	G.Therese Anita, J.Amala, K. Prabakaran, , T.V.S. Pillai, K.B.Rajesh Effect of spherical aberration on tightly focused cylindrically polarized vortex beams. Optik 125(23) (2014) https://doi.org/10.1016/j.ijleo.2014.08.124	**2014**
89	K.Lalithambigai, P.M. Anbarsan, K.B.Rajesh, Effect of complex phase plate on tight focusing of azimuthally polarized double ring shaped beam Optik, 125, 15, (2014), 4047-4050 https://doi.org/10.1016/j.ijleo.2014.03.002	**2014**
90	K. Prabakaran, K.B.Rajesh, T.V.S. Pillai Generation of multiple sub wavelength focal spot segments using radially polarized Bessel Gaussian beam with complex phase filter Optik 125,(13), (2014), 3159-316. https://doi.org/10.1016/j.ijleo.2013.12.009	**2014**
91	J.William Charles, K. Prabakaran, K.B.Rajesh, Haresh M Pandya, A.M.Musthafa. Generation of sub wavelength multiple focal hole segments using azimuthally polarized annular multi-Gaussian beam. Optik , 125, 13, (2014), 3328-3330. https://doi.org/10.1016/j.ijleo.2013.12.054.	**2014**
92	P.Suresh, K.B.Rajesh, T.V.S. Pillai, Z.Jaroszewicz Effect of annular obstruction and numerical aperture in the focal region of High NA objective lens. Optics Communications, 318, (2014), 137-141 https://doi.org/10.1016/j.optcom.2013.12.053	**2014**

93	P.Suresh, K.B.Rajesh, T.V.S. Pillai, K.Asan Mohideen, Y.P.Arul Teen Sub wavelength multiple focal spot generation of high NA objective lens using diffractive optical element. Optik, 125, 15,(2014), 3829-3832 https://doi.org/10.1016/j.ijleo.2013.12.088	**2014**
94	J.William Charles, K. Prabakaran, R. ParimalaDevi, K.B.Rajesh, T.V.S. Pillai. Tight focus of an azimuthally polarized and amplitude-modulated annular multi-Gaussian beam. Optik, 125, 13, (2014), 3023-3026. https://doi.org/10.1016/j.ijleo.2013.12.076	**2014**
95	G.Therese Anita,K. Prabakaran, R.C.Sarsawathi, K.B.Rajesh, T.V.S. Pillai Effect of spherical aberrations in tight focusing of higher order radially polarized beam. Optik - 125(10):2378–2382 (2014) . https://doi.org/10.1016/j.ijleo.2013.10.115	**2014**
96	K.Lalithambigai, P.M.Anbarsan, K.B.Rajesh. Generation of multiple focal holes by tightly focused azimuthally polarized double-ring-shaped beam with complex phase mask. Optik. 125, 10, (2014), 2225-2228 https://doi.org/10.1016/j.ijleo.2013.10.051	**2014**
97	P.Suresh, C.Mariyal, R.C.Saraswathi, K.B.Rajesh, T.V.S .Pillai, Z. Jaroszewicz. Tightly focusing of spirally polarized Quadratic Bessel Gaussian beam through a dielectric interface. Optik 125 (3), (2014) 1264-1266. https://doi.org/10.1016/j.ijleo.2013.08.039	**2014**
98	C.Mariyal, P.Suresh, K.B.Rajesh, T.V.S .Pillai , Z. Jaroszewicz . Study on propagation properties of a radially polarized partially coherent dark hollow beam through a high numerical aperture lens. Optik 125 (3), (2014) 1113-1116. https://doi.org/10.1016/j.ijleo.2013.07.165	**2014**
99	C.Mariyal ,P.Suresh, K.B.Rajesh, T.V.S. Pillai, M.Lavanya. Effect of annular obstruction on tight focusing of partially coherent radially polarized Vortex beam. Optik 125, (12), (2014), 2934-2937. https://doi.org/10.1016/j.ijleo.2013.07.165	**2014**
100	K Gokulakrishnan, T.V.S.Pillai, K.B.Rajesh, Investigation of Azimuthally Polarized Bessel modulated Gaussian Beam with Annular Obstruction Journal of Environmental Nanotechnology 3:04-08 (2014) https://doi.org/10.13074/jent.2015.03.144119	**2014**
101	K.Lalithambigai, P.M.Anbarsan, K.B.Rajesh. Creation of super-long bright channel using high NA lens axicon with dedicated multi belt binary phase mask. Optical and Quantum Electronics 47(7):1-8(2014) https://doi.org/10.1007/s11082-014-0074-1	**2014**
102	Y.P.Arul Teen, T.Nathiyaa,K.B.Rajesh, V.Ravi, T.V.S. Pillai, Effect of tilt and astigmatism aberration of turbulent atmosphere on the intensity distributions of a LG11 beam. Optik , 125(19) (2014) https://doi.org/10.1016/j.ijleo.2014.07.014	**2014**

103	K.Lalithambigai, P.M.Anbarsan, K.B.Rajesh Study on higher order azimuthally polarized Laguerre–Gaussian mode beams with high NA lens Journal of Theoretical and Applied Physics 8 (3), 134(2014). https://doi.org/10.1007/s40094-014-0134-8	**2014**
104	P.Suresh, R.Thilagavathi, K.Gokulakrishnan, K.B.Rajesh, T.V.S .Pillai, Focusing properties of a 4Pi configuration system under the illumination of double ring shaped LG 11 beam Optical and Quantum Electronics 47 (2), 179- 184. https://doi.org/10.1007/s11082-014-9897-z	**2014**
105	C.Mariyal, P.Suresh, K.B.Rajesh, T.V.S .Pillai, Partially Coherent, Radially Polarized Beam with Annular Apodization The Scientific World Journal (2014) http://dx.doi.org/10.1155/2014/160945	**2014**
106	P.Suresh, K.B.Rajesh Multiple focal segment generation on tightly focused non diffracting transversely polarized beam with diffractive optical element J. Environ. Nanotechnol 3 (4), 73-77 (2014) http://dx.doi.org/10.13074/jent.2014.12.144114	**2014**
107	R.C.Saraswathi, T.Anitha, K.B.Rajesh, Effect of coma on tightly focused linearly polarized Lorentz Gaussian beam. J. Environ. Nanotechnol. 3, 43-45 (2014). https://doi.org/10.13074/jent.2014.12.144126	**2014**
108	R Chandrasekaran, N Umamageswari, M Udhayakumar, JW Charles, K.B.Rajesh. Focusing Properties of Radially Polarized Annular Multi Gaussian Beam by High NA Parabolic Mirror J. Environ. Nanotechnol 3, 01-03 (2014). https://doi.org/10.13074/jent.2014.12.144121	**2014**
109	NV Suresh, M Agalya, S Subanya, M Lavanya, K.B. Rajesh Investigation on the Performance of the Prism Based SPR Sensor with Composite of Indium Nitrate and Gold J. Environ. Nanotechnol 3, 35-38 (2014) https://doi.org/10.13074/jent.2014.12.144128	**2014**
110	N Umamageswari, M Udhayakumar, HM Pandya, K.B. Rajesh Focusing Properties of Double Ring Shaped Cylindrical Vector Beam by High NA Parabolic Mirror J. Environ. Nanotechnol 3, 15-20 (2014) https://doi.org/10.13074/jent.2014.12.144124	**2014**
111	K Lalithambigai, CM Sundaram, PM Anbarasan, K.B. Rajesh Tight Focusing of Double-ring-shaped Azimuthally Polarized Beam Using High NA Lens Axicon. J. Environ. Nanotechnol 3, 39-42 (2014). https://doi.org/10.13074/jent.2014.12.144129.	**2014**
112	K Lalithambigai, C Mohana Sundaram, P M Anbarasan, K.B. Rajesh. Creation of needle of transversely polarized beam in vacuum by using complex phase plate. J. Environ. Nanotechnol.3, (3) 67-72(2014). https://doi.org/10.13074/jent.2014.09.143097.	**2014**

113	J.W. Charles, K.Prabakaran, K.B.Rajesh, Haresh M Pandya, Generation of sub wavelength super long dark channel using Azimuthally polarized annular multi Gaussian beam. Opt Quant Electron (2014) 46: 1079 https://doi.org/10.1007/s11082-013-9827-5	**2013**
114	K. Prabakaran, K.B.Rajesh, T.V.S .Pillai, Haresh M Pandya, Tight focusing of phase modulated double ring shaped radially polarized beam with high NA lens. Journal of Optics 42 (4), 382-387 (2013). *https://doi.org/10.1007/s12596-013-0139-8*	**2013**
115	K. Prabakaran, K.B.Rajesh, T.V.S .Pillai, R.Chandrasekaran, Focal shift of radially polarized axisymmetric Bessel modulated Gaussian beam with radial variance phase plate. Optik, 124, 22, (2013), 5454-5457 https://doi.org/10.1016/j.ijleo.2013.03.119	**2013**
116	P.Suresh, K.Gokulakrishnan, C.Mariyal, K.B.Rajesh, T.V.S .Pillai, Effect of binary phase plate on incident radially polarized hollow Gaussian beam Optik 124 (22), 5350-5352 (2013). https://doi.org/10.1016/j.ijleo.2013.03.154	**2013**
117	P.Suresh, C.Mariyal, T.V.S .Pillai, Z. Jaroszewicz, K.B.Rajesh, Study on polarization effect of azimuthally polarized LG beam in high NA Lens system Optik 124 (21), 5099-5102 (2013). https://doi.org/10.1016/j.ijleo.2013.03.139	**2013**
118	K. Prabakaran, K.B.Rajesh, T.V.S .Pillai, R.Chandrasekaran , Generation of multiple focal spot and focal hole of sub wavelength scale using phase modulated LG (1,1) beam Optik- 124 (21), 5086-5088 (2013). https://doi.org/10.1016/j.ijleo.2013.03.068	**2013**
119	K. Prabakaran, K.B.Rajesh, T.V.S .Pillai, Z. Jaroszewicz, Focus shaping of tightly focused TEM11 mode cylindrically polarized Laguerre Gaussian beam by diffractive optical element. Optik- 124 (21), 5039-5041 (2013) https://doi.org/10.1016/j.ijleo.2013.03.031	**2013**
120	C.Mariyal, P.Suresh, K.B.Rajesh, T.V.S .Pillai Tight focusing of partially coherent radially polarized beam with high NA lens axicon, Optik- 124, 21, (2013), 4956-495. https://doi.org/10.1016/j.ijleo.2013.03.043	**2013**
121	K. Prabakaran, K.B.Rajesh, T.V.S. Pillai, R.Chandrasekaran, Z. Jaroszewicz Focal shift in radially polarized beam with high NA lens axicon by using radial cosine phase wavefront Optical and Quantum Electronics 45 (6), 563-570 (2013). https://doi.org/10.1007/s11082-013-9670-8	**2013**
122	K.Lalithambigai, R.C.Saraswathi, P.M.Anbarsan, K.B.Rajesh. Generation of Multiple Focal Hole Segments Using Double-Ring Shaped Azimuthally Polarized Beam, Journal of Atomic and Molecular Physics (2013) http://dx.doi.org/10.1155/2013/451715	**2013**
123	K. Prabakaran, R.Chandrasekaran, G.Mahadevan, Z. Jaroszewicz K.B.Rajesh, T.V.S. Pillai, Tight Focusing of generalized cylindrical vector beam with high NA lens axicon. Optics Communications 295, 230-234 (2013). https://doi.org/10.1016/j.optcom.2012.12.007	**2013**

124	P.Suresh, C.Mariyal, K.B.Rajesh, T.V.S .Pillai Polarization effect of cylindrical vector beam in high numerical aperture lens axicon systems. Optik- 124 (13), 1632-1636 (2013). https://doi.org/10.1016/j.ijleo.2012.05.049	**2013**
125	P.Suresh, C.Mariyal, K.Gokulakrishnan, K.B.Rajesh, T.V.S.Pillai, Tight focusing of circularly polarized beam over high NA lens axicon with a diffractive optical element Optik , 124, 20, 2013, 4389-4392. https://doi.org/10.1016/j.ijleo.2013.01.060	**2013**
126	NV Suresh, KPR Chandrasekar, H M Pandya, K.B. Rajesh Generation of Tunable Focal Spot and Focal hole by Radially Polarized Axisymmetric Bessel-modulated Gaussian beam J. Environ. Nanotechnol2, 107-112 (2013). https://doi.org/10.13074/jent.2013.02.nciset3	**2013**
127	RC Saraswathi, K Prabakaran, K.B. Rajesh, HM Pandya Focusing of Radially Polarized Lorentz Gaussian Beam with One on Axis Optical Vortex J. Environ. Nanotechnol 2 (3), 21-24 (2013) https://doi.org/10.13074/jent 2013.09.132027	**2013**
128	A.Selavaraj. R.Parimaladevi, K.B.Rajesh Synthesis of nitrogen doped titanium dioxide (TiO2) and its photocatalytic performance for the degradation of indigo carmine dye J. Environ. Nanotechnol 2 (1), 35-41 (2013). https://doi.org/10.13074/jent.2013.02.121026.	**2013**
129	HM Pandya, M U Sharma, AT Nimal, K.B. Rajesh Impulse modelled response of a 300 MHz ST-quartz SAW device for sensor specific applications Journal of Environmental Nanotechnology 2, 15-21 (2013) https://doi.org/10.13074/jent.2013.02.nciset33	**2013**
130	P.Suresh, C.Mariyal, K.B.Rajesh, T.V.S .Pillai, Z. Jaroszewicz Generation of a strong uniform transversely polarized nondiffracting beam using a high-numerical-aperture lens axicon with a binary phase mask Applied optics 52 (4), 849-853 (2013) https://doi.org/10.1364/AO.52.000849	**2013**
131	V Ravi, P.Suresh, K.B.Rajesh, Z. Jaroszewicz, P.M.Anabarasan, T.V.S.Pillai, Generation of sub-wavelength longitudinal magnetic probe using high numerical aperture lens axicon and binary phase plate J. Opt. 14 055704(2012) https://doi.org/10.1088/2040-8978/14/5/055704	**2012**
132	K.Lalithambigai,P.suresh, V.Ravi, K.Prabakaran, Z. Jaroszewicz, K.B.Rajesh, P.M.Anbarsan, T.V.S. Pillai, Generation of sub wavelength super-long dark channel using high NA lens axicon, Optics Letters l. 37, 6, 999-1001 (2012). https://doi.org/10.1364/OL.37.000999	**2012**
133	P Suresh, JW Charles, K.B. Rajesh, TVS Pillai Generation of tunable focal holes by tight focusing of phase modulated azimuthally polarized double ring shaped beam IEEE International Conference on Computational Intelligence and computing research 1-3 (2012)	**2012**

	https://doi.org/10.1109/ICCIC.2012.6510306	
134	G Therese Anita, R Mahesh Kumar, K Lalithambigai, K.B. Rajesh, PM Anbarasan Effect of spherical aberration in tight focusing of azimuthally polarized double ring shaped beam IEEE International Conference on Computational Intelligence and computing research 1-4 (2012) https://doi.org/ 10.1109/ICCIC.2012.6510307	**2012**
135	K Prabakaran, K.B. Rajesh, TVS Pillai, Z Jaroszewicz Effect of phase modulated on tightly focused radially and azimuthally polarized double ring shaped beam. International Conference on Fiber Optics and Photonics (PHOTONICS), 1-3 (2012) Electronic ISBN: 978-1-4673-4718-1,Print ISBN: 978-1-4673-4718-1	**2012**
136	R Chandrasekeran, K Prabakaran, K.B. Rajesh, TVS Pillai, Z Jaroszewicz Tight focusing of cylindrical vector beam with high NA lens axicon International Conference on Fibre Optics and Photonics, MPo. 12 (2012) https://doi.org/10.1364/PHOTONICS.2012.MPo.12	**2012**
137	P Suresh, K.B. Rajesh, TVS Pillai. Tight Focusing of Amplitude Modulated HyGG Type–II Beam using High NA Lens Axicon. International Conference on Fibre Optics and Photonics, MPo. 19 (2012) Electronic ISBN: 978-1-4673- 4718-1 Print ISBN: 978-1-4673-4718-1	**2012**
138	K.B.Rajesh , Z. Jaroszewicz, R.Mohankumar,C.Amala Prathiba janet, T.V.S. Pillai, Generation of High Efficiency Longitudinally Polarized Beam using High NA Lens Axicon and Dedicated Phase Filter. AIP Conference Proceedings 1391, 339 (2011); https://doi.org/10.1063/1.3643542	**2011**
139	K.B.Rajesh, N. Veerabagu Suresh, P.M.Anabarasan, K.Gokulakrishnan, G.Mahadevan, Tight focusing of double ring shaped radially polarized beam with high NA lens axicon Optics & Laser Technology 43(7):1037-1040 (2011). https://doi.org/10.1016/j.optlastec.2010.11.009	**2011**
140	K.B.Rajesh, Z. Jaroszewicz , P.M.Anabarasan, T.V.S.Pillai, N. Veerabagu Suresh, Extending the depth of focus with high NA lens axicon Optik, 122, 18, 1619-1621, (2011). https://doi.org/10.1016/j.ijleo.2010.10.012	**2011**
141	K.B.Rajesh, Z. Jaroszewicz, P.M.Anabarasan, Improvement of lens axicon's performance for longitudinally polarized beam generation by adding a dedicated phase transmittance. Optics Express, 18, 26, 26799-26805 (2010) https://doi.org/10.1364/OE.18.026799	**2010**
142	P.M.Anabarasan, K.B.Rajesh, Generation of needle of longitudinally polarized beam by tight focusing of double-ring-shaped radially polarized beam with high NA lens axicon. Optics Express 18, 26, 26799-26805 (2010) https://doi.org/10.1063/1.3426072	**2010**

143	K.B.Rajesh, P.M.Anabarasan, Generation of sub-wavelength and super-resolution longitudinally polarized non-diffraction beam using lens axicon Chinese Optics Letters 6 (10), 785-787 (2008). https://doi.org/10.3788/COL20080610.0785	**2008**
144	K.B.Rajesh, P.M.Anabarasan, K.Tamilmaran, Nanoscale resolution lens axicon for high density optical recording using krypton ion laser JP Journal of solids and structures, 2, 10,139-149 (2008). https://doi.org/10.3788/20080210.0785	**2008**

Annexure – II

National and International Conferences:

S.NO	NAME AND TITLE	YEAR
1	M. Muthumanicam,G. Alagu Vibisha, M.C.L. Prabhakar, P. Suresh **K.B. Rajesh*** "Effect of Lithium Niobate on the Sensing Performance of the Surface Plasmon Resonance Biosensor" XLVI OSI SYPOSIUM International Conference on Optics, Photonics & Quantum Information (OPTIK - 2023) December (11- 13, 2023) at International School of Photonics, Cochin University of Science and Technology, Kerala – 682 022	**2023**
2	G. Alagu Vibisha, R. Priyakalyani, **K.B. Rajesh*** "Enhance Performance of SPR Biosensors using Al-Co Bimetallic Layer Covered by $PbTiO_2$- BlueP/WS_2 " XLVI OSI SYPOSIUM International Conference on Optics, Photonics & Quantum Information (OPTIK - 2023) December (11- 13, 2023) at International School of Photonics, Cochin University of Science and Technology, Kerala – 682 022	**2023**
3	V. Ashwaanth, **K.B. Rajesh*** "Landscaping SAM and OAM with Tightly Focused Vector Lissajous Beam Embedded with Vortex Phase " XLVI OSI SYPOSIUM International Conference on Optics, Photonics & Quantum Information (OPTIK - 2023) December (11- 13, 2023) at International School of Photonics, Cochin University of Science and Technology, Kerala – 682 022	**2023**
4	M Lavanya D Thiruarul **K.B. Rajesh** " Focusing Properties of Hybridly Polarized Sin h Gaussian Beam Through A Dielectric Interface", Optical Society of India (OSI), International Conference on Optics and Optoelectronics (ICOL-2019) October 19-22, 2019 at Instruments R & D Establishment, Dehradun, India	**2019**
5	M. Udhayakumar, M Lavanya, **K.B. Rajesh** "Generation and Manipulation of Super-Resolution Spherical Magnetization Chains by Phase Modulated Circularly Polarized", Optical Society of India (OSI), International Conference on Optics and Optoelectronics (ICOL-2019) October 19-22, 2019 at Instruments R & D Establishment, Dehradun, India.	**2019**
6	M. Udhayakumar, **K.B. Rajesh** Multiple focal segments generated by phase modulated azimuthal and radial variant vector beam Optics & Photonics: Theory & Computational Techniques (OPTCT) IIT-Delhi. March 23-24, 2019	**2019**
7	**K.B. Rajesh** All optical magnetic recording using ultrafast lasers2nd International Conference on Recent Trends in Applied Science and Technology 23-25 August (2018) Periyar University, Salem	**2018**

8	M Lavanya, **K.B. Rajesh** Focusing properties of azimuthally polarixed axisymmetric Bessel modulated voterx Gaussian beam through a dielectric interface", "OSI ISO- International symposium on Optics (OSI – ISO 2018) , IIT Kanpur, 19-22 Sep 2018.	**2018**
9	M Lavanya ., **K.B. Rajesh** "Generating 3D chain of optical bubbles using concentric piecewise cylindrical vector beams" , The International Conference on Fibre Optics and Photonics, Photonics 2018, IIT Delhi, 12-15 Dec 2018	**2018**
10	**K.B. Rajesh** Generation of sub-wavelength longitudinal magnetization bytightly focusing of azimuthally polarized multi Gaussian beam. Optics & Photonics: Theory & Computational Techniques (OPTCT) IIT-Delhi. March 4-5, 2017	**2017**
11	**K.B. Rajesh** Generating super-long pure longitudinal magnetization Needle for all optical magnetic recording Applied and Adaptive Optics (INTOPMAA-17) IISST Tiruvanthapuram , 11-13 August 2017	**2017**
12	**K.B. Rajesh** Tight focusing Properties of phase modulated azimuthally polarized Laguerre Bessel Gaussian Beam International conference on Discrete and Computational Mathematics (ICDCM -2017) Feb-16-18, 2017, The Gandhi gram Rural Institute–Deemed University	**2017**
13	**K.B. Rajesh** Recent trends in Nano optics One day seminar P K R Arts College For Women, Gobichettipalyam, 2 August 2017	**2017**
14	C. Mohanasundaram, K. Prabakaran, **K. B. Rajesh** "Tight focusing properties of transversely polarized sin h Gaussian beam through a numerical aperture lens" National Conference on "Advances in Materials Science and Non-Linear Systems During August 7th-8th , 2016, organized by K.S.R. College of Engineering, Department of Physics, Thiruchengode, Namakkal, Tamilnadu.	**2016**
15	C. Mohanasundaram, K. Prabakaran, **K. B. Rajesh** "Tight focusing properties of transversely polarized sin h Gaussian beam through a numerical aperture lens" National Conference on "Advances in Materials Science and Non-Linear Systems During August 7th-8th , 2016, organized by K.S.R. College of Engineering, Department of Physics, Thiruchengode, Namakkal, Tamilnadu.	**2016**
16	C. Mohanasundaram, K. Prabakaran, K. B. Rajesh "Tight focusing properties of transversely polarized sin h Gaussian beam through a numerical aperture lens" National Conference on "Advances in Materials Science and Non-Linear Systems During August 7th-8th , 2016, organized by K.S.R. College of Engineering, Department of Physics, Thiruchengode, Namakkal, Tamilnadu	**2016**
17	M.Udhayakumar, K. B. Rajesh Focusing properties of Linearly Polarized Hollow Gaussian Beam through a Dielectric Interface, TEQIP II Sponsored International Conference on Recent Advancements in Materials (ICRAM-15) 16 th & 17 th October, (2015) Organized by Department of Physics, Bharathidasan Institute of Technology, Trichy, Tamilnadu	**2015**

18	C. Mohanasundaram, K. Prabakaran, K. B. Rajesh "Focal shifting of radially polarized Laguerre Bessel Gaussian beam using cosine phase plate" International Conferences on Latest Development in the Application of Laser Technology, During 7th Dec (2015), Organized by Department of Chemistry and Physics, PSGR Krishnammal College for Women, Coimbatore, Tamilnadu	**2015**
19	C. Mohanasundaram, K. Prabakaran, P. M. Anbarasan, V. Senthil Kumar, K. B. Rajesh "Transversely Polarized Optical Needle with Super Long Focal Depth Using Azimuthally Polarized Multi-Gaussian Beam" TEQIP II Sponsored International Conference on Recent Advancements in Materials (ICRAM-15) 16 th & 17 th October, (2015) Organized by Department of Physics, Bharathidasan Institute of Technology, Trichy, Tamilnadu.	**2015**
20	C. Mohanasundaram, K. Prabakaran, P. M. Anbarasan, K. B. Rajesh "Tight Focusing Properties of Phase Modulated Transversely Polarized Doughnut Gaussian Beam" State Level Conference on Application of Materials Science in Physics during October 9th (2015) organized by Department of PhysicsMahendra Arts and Science College, Thiruchengode, Namakkal, Tamilnadu	**2015**
21	K.Prabakaran, K.B.Rajesh, T.V.S.Pillai" Generation of Sub wavelength focal hole using azimuthally polarized annular multi- Gaussian beam by vector diffraction theory" DAE-BRNS, National Laser Symposium(NLS-22), organized by, Manipal University, Manipal, Karnataka on Jan 08-11, 2014,	**2014**
22	J.Willam Charles K.Prabakaran, Hareseh M. Pandiya, K.B. Rajesh, T.V.S.Pillai, "Generation of multiple focal spot segments using radially polarized Bessel Gaussian," in XXXVII National symposium of Optical society of india at Department of physics, Pondicherry University , Pondicherry on January 23-25, 2013.	**2013**
23	K.Prabakaran, K.B.Rajesh, T.V.S.Pillai, A. Mohamed Musthafa, "Effect of complex phase filter in tight focusing of double ring shaped radially polarized beam", 21 st DAE-BRNS, National Laser Symposium(NLS-21), during Feb 06-09, 2013, organized by Bhabha Atomic Research Centre, Mumbai	**2013**
24	K.Prabakaran, R.Chandrasekaran, K.B.Rajesh, T.V.S.Pillai, "Effect of spherical aberration in high NA lens systems used for nano patterning applications" Third national conference on multifunctional nanomaterials and nanocomposite (NCMNN-2013),during Feb 25-26 th 2013, is organized by Department of Nanosicence and Technology, Bharathiyar university, Coimbatore.	**2013**

25	N.Veerabagu Suresh, K.Prabakaran, R.Chandrasekar, HareshM.Pandya, K.B.Rajesh, Generation of Tunable Focal Spot and Focal hole by Radially Polarized Axisymmetric Bessel-modulated Gaussian beam, Third National Conference on Innovations in Indian Science Engineering & Technology at CSIR-National Physical Laboratory and IARI, New Delhi, During February 25-27, 2013, organized by Swadeshi Science Movement of India, Delhi	**2013**
26	K.Lalithambigai, P.M.Anbarasan, K.B.Rajesh, "Generation of nanoscale transversally polarized multiple focal spot using complex phase filter " Third national conference on multifunctional nanomaterials and nanocomposite (NCMNN-2013),during Feb 25-26Th 2013, is organized by Department of Nanosicence and Technology, Bharathiyar university, Coimbatore.	**2013**
27	N.Veerabagu Suresh, M.Lavanya, S.Subanya, K.B.Rajesh, "Excitation of surface Plasmon on graphene coated metal layer by radially polarized Bessel Gaussian beam" Third national conference on multifunctional nanomaterials and nanocomposite(NCMNN-2013),during Feb 25-26 th 2013, is organized by Department of Nanosicence and Technology, Bharathiyar University, Coimbatore.	**2013**
28	P.Suresh, K.RamKarthik Kumar, J.Willam Charles, K.B. Rajesh, T.V.S.Pillai, "Generation of tunable focal holes by Tight Focusing of Phase Modulated Azimuthally Polarized Double Ring Shaped Beam," in IEEE International Conference on Computational Intelligence and Computing Research(ICCIC) at TamilNadu College of Engineering on December 18-20, 2012	**2012**
29	G.Therese Anita, R.Mahesh Kumar, K.Lalithambigai, K.B. Rajesh, P.M.Anbarasan,"Effect of Spherical Aberration in Tight Focusing of Azimuthally Polarized Double Ring Shaped Beam,"in IEEE International Conference on Computational Intelligence and Computing Research(ICCIC) at TamilNadu College of Engineering on December 18-20, 2012	**2012**
30	P.Suresh, K.B.Rajesh, T.V.S.Pillai, "Tight Focusing of Amplitude Modulated HYGG Type – II Beam using high NA Lens Axicon," in International conference on Fiber Optics and Photonics (Photonics 2012) held at IIT Madras.	**2012**
31	K.Lalithambagai, , Leelavathi, P.M.Anbarasan, K.B.Rajesh, "Generation of Subwavelength super lomg dark channel using complex phase filter," in International conference on Fiber Optics and Photonics (Photonics 2012) held at IIT Madras.	**2012**

32	R.Chandrasekaran, K.Prabakaran, K.B.Rajesh, Z.Jaroszewicz, ”Tight Focusing of Cylindrical Vector Beam with High NA Lens Axicon,” in International conference on Fiber Optics and Photonics (Photonics 2012) held at IIT Madras.	**2012**
33	K.Prabakaran, K.B.Rajesh,Z.Jaroszewicz, ”Effect of phase modulated on tightly focused radially and azimuthally polarized double ring shaped beam,” in International conference on Fiber Optics and Photonics (Photonics 2012) held at IIT Madras.	**2012**
34	C.Mariyal, P.Suresh, K.B.Rajesh, T.V.S.Pillai, “Generation of tenable focal shift for optical manipulation of trapped Nano particles using radial cosine phase wave front”, in International conference on Nanomaterials and applications (ICNMA-2012) held at Mother teresa women’s University, Kodaikanal on Feb 28-29,2012	**2012**
35	G.ThereseAnitha, C.AmalaPrathiba Janet, T.V.S.Pillaia, K.B.Rajesh, ”Effect of Spherical Aberration on tight focusing of Azimuthally Polarized Double Ring Beam”, in International conference on Nanomaterials and applications (ICNMA-2012) held at Mother teresa women’s University, Kodaikanal on Feb 28-29,2012	**2012**
36	K.Lalithambagai, R.C.Sarasvathi, R.Chandraseker, A.Cyrac Peter, K.B.Rajesh, P.M.Anbarasan, ” Generation of Axially tunnable sub wavelength focal hole with a binary phase filter and high NA lens system”, in International conference on Nanomaterials and applications (ICNMA-2012) held at Mother teresa women’s University, Kodaikanal on Feb 28-29,2012	**2012**
37	C.Kanchanadevi, K.Gokulakrishnan, C.Mariyal, C.AmalaPrathiba Janet, T.V.S.Pillai K.B.Rajesh,”Tight focusing of azimuthally polarized beam with pure phase plate and a high numerical aperture Lens Axicon” in International conference on Nanomaterials and applications (ICNMA-2012) held at Mother teresa women’s University, Kodaikanal on Feb 28-29,2012	**2012**
38	S.Sumathi, K.Gokulakrishnan, N.Veerabagu Suresh K.B.Rajesh, G.ThreseAnita,”Tight Focusing of Double Ring Shaped Azimuthally Polarized Beam Using High NA Lens Axicon”, in International conference on Nanomaterials and applications (ICNMA-2012) held at Mother teresa women’s University, Kodaikanal on Feb 28-29,2012.	**2012**

39	K.Prabakaran, N.Veerabagu Suresh, C.AmalaPrathiba Janet, G.ThereseAnitha, T.V.S.Pillai, K.B.Rajesh," Focus shaping using cylindrical vector beam with high NA lens axicon", in International conference on Nanomaterials and applications (ICNMA-2012) held at Mother teresa women's University, Kodaikanal on Feb 28-29,2012.	**20122**
40	P.Suresh, C.Mariyal, C.Kanchana Devi, K.B. Rajesh, Z. Jaroszewicz,T.V.S.Pillai, "Generation of Focal shift with large depth of focus using high numerical aperture lens axicon" in The XXXVI Optical Society of India Symposium on Frontiers in Optics and Photonics held at IIT Delhi, New Delhi on Dec 3-5, 2011	**2011**
41	K. Prabakaran, P.Suresh, Mohamed Musthafa.A, Z.Jaroszewicz ,K. B. Rajesh," Tight focusing of Hypergeometric-Gaussian type-II optical mode beam with high NA lens axicon",in The XXXVI Optical Society of India Symposium on Frontiers in Optics and Photonics held at IIT Delhi, New Delhi on Dec 3-5, 2011	**2011**
42	K.Lalithambigai, V.Ravi, K.Prabakaran, Z.Jaroszewicz, K.B.Rajesh, P.M.Anbarasan, T.V.S.Pillai," Generation of nanoscale focal hole with extended depth of focus for trapping array of nanoparticles" in The XXXVI Optical Society of India Symposium on Frontiers in Optics and Photonics held at IIT Delhi, New Delhi on Dec 3-5, 2011	**2011**
43	G.Threse Anita, C.AmalaPrathiba Janet, S.Sumathi, K.Gokulakrishnan, Z.Jaroszewicz K.B.Rajesh, T.V.S.Pillai," Generation of longitudinal magnetic probe with extended DOF for near field magneto optical recording", in The XXXVI Optical Society of India Symposium on Frontiers in Optics and Photonics held at IIT Delhi, New Delhi on Dec 3- 5, 2011	**2011**
44	P.Suresh, C.Mariyal, C.Kanchana Devi, K.B. Rajesh, Z. Jaroszewicz,T.V.S.Pillai, "Increasing the focal depth of cylindrical vector beam using high numerical aperture lens axicon" in First International OSA Network of Students Conference in Asia(IONS'1-Delhi) held at IIT Delhi, New Delhi on Dec 1-2, 2011.	**2011**
45	C.Mariyal, P.Suresh, C.KanchanaDevi, K.B. Rajesh, Z. Jaroszewicz, T.V.S. Pillai, "Focusing a radially polarized cosine wave front through high numerical aperture lens axicon system"in First International OSA Network of Students Conference in Asia(IONS'1 -Delhi) held at IIT Delhi, New Delhi on Dec 1-2, 2011.	**2011**

46	C.Mariyal, P.Suresh, C.KanchanaDevi, K.B. Rajesh, Z. Jaroszewicz, T.V.S. Pillai, "Focusing a radially polarized cosine wave front through high numerical aperture lens axicon system"in First International OSA Network of Students Conference in Asia(IONS'1 -Delhi) held at IIT Delhi, New Delhi on Dec 1-2, 2011.	**2011**
47	P.Arul Teen, P.Deivegan, K.B.Rajesh & K. Esakkimuthu, "Improving the SNR using Bessel- Gauss beam for free space optical interconnection" in International conference on Optics to be held at National Institute of Technology, Calicut on Mar 23-24, 2011	**2011**
48	K.B.Rajesh, Z.Jaroszewicz, R.Mohanakumar, C.AmalaPrathiba Janet & T.V.S.Pillai, "Generation of High Efficiency Longitudinally Polarized Beam Using High Na Lens Axicon and dedicated Phase Filter" in International conference on optics 2011 to be held at National Institute of Technology, Calicut on Mar 23-24, 2011	**2011**
49	G.DeeakKumaran, K.B.Rajesh & G. Therese Anita, "Focal switching for manipulation of Optical traps Using Double Ring Shaped Radially Polarized beam with Spherical Aberration" in International conference on optics 2011 to be held at National Institute Of Technology, Calicut on Mar 23-24, 2011	**2011**
50	G.DeeakKumaran, K.B.Rajesh & K.Gokulakrishnan, "Effect of Spherical Aberration on tightly focused Hypergeometric-Gaussian beam" in International Conference in Optics 2011 to be held at National Institute of Technology, Calicut on Mar 23-24,2011	**2011**
51	R.Mohan Kumar, K.B.Rajesh & EsakkiMuthu , "All Optical Magnetic recording using High NA Lens axicon" in XXXV OSI International Conference on Contemporary trends in Optics and Opto Electronics held at Indian Institute of Space Science and Technology, Trivandrum on Jan 17-19,2011	**2011**
52	G.DeeakKumaran, K.B.Rajesh & K.Gokulakrishnan, "Generation of Novel Focal Pattern using Double Ring Shaped Radially Polarized Beam with Radial Cosine Phase Plate" In XXXV OSI International Conference on Contemporary trends in Optics and Opto Electronics held at Indian Institute of Space Science and Technology, Trivandrum on Jan 7 -19, 2011	**2011**

53	N.Veerabagu Suresh, K.B.Rajesh & K.Gokulakrishnan, "High Density Optical Interconnections using Bessel Beam" National Conference on Microwave and Optical Communication NCMOC 2010 held at Alagappa University, Karaikal on 6th April 2010	**2010**
54	K.B.Rajesh, N.Veerabagu Suresh & K.Gokulakrishnan, "Generation of longitudinally Polarized beam with large depth of focus using High NA Lens Axicon" in Annual Photonics Workshop (APW 2010) on Quantum Optics held at International School of Photonics, Cusat,Cochin on Feb 27-28, 2010	**2010**
55	K. B. Rajesh, V.Ravi & P.M.Anbarasan, "Generation of Sub Wavelength and Longitudinal Polarized Non Diffracting Beam by tight focusing of Double Ring Shaped Radially polarized Beam through High Na Lens Axicon" National Seminar on Photonics Materials (NSPM-2009 (NSPM-2009), University of Kerala, Feb.26-28, 2009	**2009**
56	K. B. Rajesh, V.Ravi & P.M.Anbarasan "Generation of n ear field optical virtual probe Using Solid Immersion Axicon (SIAX)" National Seminar on Photonics Materials (NSPM-2009), University of Kerala, Feb 26-28, 2009	**2009**
57	K.B.Rajesh,P.M.Anbarasan&V.Ravi, "Lens Axicons Illuminated by Gaussian Beams for Optical Microlithography" in the National Conference on Recent Trends in Opto Electronics and Laser Technology (NCOL- 2007), University of Kerala, April 9 – 11, 2007	**2007**
58	K.B.Rajesh &P.M.Anbarasan, "Bessel Beam using Annular Rings for Optical Microlithography" in the National Conference on Recent Trends in Optoelectronics and Laser Technology (NCOL -2007), University of Kerala, April 9 – 11, 2007	**2007**
59	K.B.Rajesh & P.M.Anbarasan, "Bessel beam using annular rings for optical Microlithography" in the XXXII OSI Symposiums – held at MS University of Baroda –Gujarat during 1-3 Mar. 2007	**2007**

60	P.M.Anbarasan, S.Selvanandan, K.B.Rajesh, A.Kalyanasundaram &R.Rengaiyan "Microlenses focused beam on silicon solar cells for high efficient light trapping scheme" in the International conference on Photonics-2006 held at Hyderabad Central University, Dec 13-16, 2006	**2006**
61	K.B.Rajesh, P.M.Anbarasan, V.Ravi & K.Vasudevan, "Experimental and theoretical Investigation on the effect of Various Parameters on the Surface morphology of the Microlenses under hot embossing process" in the National Conference on Recent Advances in Materials Science (NCMS-2006) held at Periyar University, Feb16-17, 2006	**2006**

(Annexure – III)

Resource Person/Invited Lectures

1. **Invited Speaker: 9th** International Conference on Discrete Mathematical and Mathematical Modeling in Digital Era (ICDMMMDE- 2023), (**Title:Numerical Analysis of Laser Focal Fields using Vector Diffraction Theory**), THE GANDHIGRAM RURAL INSTUTITE – DEEMED UNVERSITY, Gandhigram , Dindigul – 624 302. **Dated : 23.03.2023**
2. **Invited Speaker:** International Conference on Optics and Photonics Technology – ICOPT – 23, (**Title: Sculpturing Focal Structure with Tightly Focused Beam**), PSGR Krishnammal College for Women, Peelamedu, Coimbatore – 641004. **Dated: 03.02.2023.**
3. **Invited Talk:** Recent Advancements and Innovations in Energy Research, PG& Research Department of Physics, Mahendra Arts & Science College (Autonomous), Kalippatti (Po)- 637501, Tiruchengode (Tk), Namakkal (Dt), TN. **Dated: 20.4.2022.**
4. **Invited Talk :** International E- Conference on Recent Trends in Applied Physics(**Titel: Optics for Nano- scale Application)** PG& Research Department of Physics, Sri Sarada College for Women, Ariyakulam, Thoothukudi NH, maharaja Nagar Post, Tirunelveli – 627011 **Dated: 28.011.2021**
5. **Invited Talk :** Applied optics and Photonics**(Title: Optics for Nano Scale Application),** Indian Institute of Technology Indore, Khandwa Road, Simrol-453552, Indore. **Dated: 10.08.2021.**
6. **Invited Talk:** First Virtual Conference on Nano Exploration 2021(**Title: Nano photonics &Nano Biotechnology**), PG& Research Department of Physics, Mahendra Arts & Science College (Autonomous), Kalippatti (Po)- 637501, Tiruchengode (Tk), Namakkal (Dt), TN. **Dated: 24.5.2021.**
7. **Invited Lecture:** International Lecture Series Rendezvows with Science (**Title: Optics for Applications**), Department of Physics, Mother Teresa Women's University, Kodaikanal – 624102**. Dated: 25.02.2021**
8. **Resource Person:** Technical Advances in Novel Materials **(Title: Focal engineering for Nanoscale Application),** Physics Research Centre and the Department of Humanities and Sciences, St.Xavier's Catholic College of Engineering, Nagercoil, Tamil Nadu. **Dated: 09.10.2020**
9. **Resource Person:** Advanced Application of Nanotechnology (**Title: Nano Bio photonics**), PG& Research Department of Physics, ARIGNAR ANNA COLLEGE (ARTS & SCIENCE), KRISHNAGIRI – 635115. **Dated: 16.09.2020.**
10. **Invited Talk:** Optics & Photonics: Theory & Computational Technuques (OPTCT), IIT Delhi **Dated : 21.03.2020.**

11. **Invited Talk:** National Seminar on Recent Trends in Material Science (NSRTMS-2020), (**Title: Laser in Day Today Life),** PG& Research Department of Physics, Pachamuthu College of Arts Science for Women, Dharmapuri. **Dated : 25.02.2020.**
12. **Invited Talk:** International Conference on Innovation in Graphs and its Application in Digital Era– 2020. Department of Mathematics, University of Kerela, Kariavattam, thiruvanathapuram- 695581 **Dated : 22.01.2020.**
13. **Invited Talk:** National Symposium on Nano composites and their Application, Department of Physics, P.K.R. Arts College for women, Gobichettipalayam, Erode – 63476. **Dated : 18.012.2019.**
14. **Invited Talk:** Nano optics in Nutshell. Department of physics, DON BOSCO Arts and science college, Dharmapuri 29.08.2019
15. **Invited Talk:** Vectorial approach in focal engineering for all optical magnetic recording, International Conference on Emerging Materials and Modeling (ICEMM - 2019) 07 – 09th January 2019 Organized by K.S. Rangasamy College of Arts and Science (Autonomous)
    K.S.R Kalvi Nagar, Tiruchengode – 637 215, Namakkal Dt, Tamilnadu.
16. **Invited Talk:** International Conference on Revolutionary Trends in Mathematical Science (ICRTMS 2018), Department of Mathematics & Department of Mathematics (CA), Mannar Thirumalai Naicker College, Madhurai – 625 004 **Dated : 14.12.2018**
17. **Resource person:** Workshop On Optics PSGR Krishnammal College for women, Coimbatore. 16.10.2018
18. **Invited Talk:** All optical magnetic recording using ultrafast lasers 2nd International Conference on Recent Trends in Applied Science and Technology 23-25August (2018) Periyar University, Salem
19. **Invited Talk:** Nano optics, Organized by K.S. Rangasamy College of Arts and Science (Autonomous) K.S.R Kalvi Nagar, Tiruchengode – 637 215, Namakkal Dt, Tamilnadu 02.08.2018
20. **Resource person:** Guest Lecture, Department of Physics, Saiva Bhanu Kshatriya College 20.01.2018
21. **Invited Talk:** Advancing materials research AMR 2017 organized by the PG & Research Department of Physics, Mahendra Arts & Science College, Kalippatti, Namakkal – 637 501 on 21.08. 2017.
22. **Invited Talk:** Generation of sub-wavelength longitudinal magnetization by tightly focusing of azimuthally polarized multi Gaussian beam. Optics & Photonics: Theory & Computational Techniques (OPTCT) IIT-Delhi. March 4-5, 2017
23. **Invited Talk:** Generating super-long pure longitudinal magnetization Needle for all optical magnetic recording Applied and Adaptive Optics (INTOPMAA-17) IISST Tiruvanthapuram, 11-13 August 2017
24. **Invited Talk:** Recent trends in Nano photonics, P.K.R Arts College for women, Gopichettipalayam. **Dated:02.08.2017.**
25. **Invited Talk:** Discrete and Computational Mathematics- ICDCM2017**,** International Conference on Discrete and Computational Mathematics**,** THE GANDHIGRAM RURAL INSTUTITE – DEEMED UNVERSITY, Gandhigram , Dindigul – 624 302 **Dated:16.02.2017**.
26. **Invited Talk:** Light Based Current Technology, Special Lecture on **3rd March 2016** in the
    K.S.R. College of Engineering, Tiruchengode - 637 215.
27. **Resource person:** Seminar on Plasmonics Sensors & recent Trends in Nano Optics, Organized by , PG & ResearchDepartment of Physics, Pachamuthu College of Arts

and Science for Women, Dharmapuri . **Dated: 19.11.2015**

28. **Invited Lecture: Recent Trends in Nanooptics,** Kamadhenu Arts and Science College, Sathayamagalam, Erode – 638503**, Dated : 15.9.2015.**
29. **Invited Talk:** Special Lecture **(Title: Nanooptics),** Department of Physics, Periyar University, Periyar Palkalai Nagar, Salem – 636001. **Dated : 11.01.2013**