Curriculum Vitae

1. Name and full correspondence address

Dr. M.S. Mani Rajan
Assistant Professor
Department of Physics
Anna University
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Ramanathapuram 623513.

2. Email(s) and contact number(s)

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3. Institution

Anna University,
University College of Engineering
Pullangudi (Post)
Ramanathapuram 623513.

4. Date of Birth — 16.05.1980

5. Gender — Male

6. Academic Qualification (Undergraduate Onwards)

S.No	Degree	Year	Subject	University/Institution	% of marks
1.	B.Sc	2002	Physics	Vivekananda College, Madurai	**69.38**
2.	M.Sc	2004	Physics	N.M.S.S.V.N College, Nagamalai, Madurai	**78.80** **With Distinction**
3.	M.Phil	2008	Physics	Bharathidasan University, Trichy	**75.5**
4.	Ph.D	2014	Physics (Nonlinear Fiber Optics)	CEG Campus Anna University Chennai	**8.7** (CGPA)

7. Ph.D thesis title, Guide's Name, Institute/Organization/University, Year of Award.

Thesis Title: **OPTICAL SOLITON PROPAGATION IN SOME INHOMOGENEOUS NONLINEAR OPTICAL FIBER SYSTEMS**

Research Supervisor: Dr. A. Mahalingam,
Department of Physics,
Anna University, CEG Campus,
SP Road, Chennai-25

Year of Award: 2014

8. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

S. No	Name of Award	Awarding Agency	Year
1.	**Project Fellow**	**DST-Raja Ramanna Fellowship**	**2005-2007**
2.	**AISTDF R&D Collaboration**	**DST SERB**	**2018-2020**

9. **Research Area:**

- Nonlinear Dynamics
- Optical Fiber Communication
- Optical Fiber for Sensing applications
- Computational Physics
- Photonic Crystal Fibers

10. Publications *(List of papers published in SCI Journals, in year wise descending order).*

1. J. Thilakavathy, R. Amrutha, K. Subramanian, **M. S. Mani Rajan**, *Different wave patterns for (2 + 1) dimensional Maccari's equation*, Nonlinear Dynamics 108 (2022) 445-456.
2. **M.S. Mani Rajan**, S. Saravana Veni, *Impact of external potential and non-isospectral functions on optical solitons and modulation instability in a cubic quintic nonlinear media*, Chaos, Solitons and Fractals 159 (2022) 112186.

3. **M.S. Mani Rajan,** Saravana Veni, *Modulational instability in a tapered erbium doped fiber with inhomogeneous broadening*, Optical and Quantum Electronics 54 (2022)173.
4. S.B. Khalifa, S. Chebaane, V. Senthil Nayagam, Saravana Veni, **M.S. Mani Rajan**, *Periodic and nonperiodic amplifications of attosecond solitons in an inhomogeneous lossy optical fiber*, Optik 252 (2022) 168498.
5. D. Vigneswaran, **M. S. Mani Rajan**, B. Biswas, A.Grover, Kawsar Ahmed, B.K.Paul**,** *Numerical investigation of spiral photonic crystal fiber (S-PCF) with supporting high order OAM modes propagation for space division multiplexing applications,* Optical and Quantum Electronics 53 (2021) 78.
6. S. Saravana Veni, **M.S. Mani Rajan,** *Attosecond soliton switching through the interactions of two and three solitons in an inhomogeneous fiber*, Chaos, Solitons & Fractals 152 (2021) 111390.
7. S. A. Mitu, K. Ahmed, F. M. Bui, P. Nithya, F. A. Al-Zahrani, Md. Aslam Mollah, **M.S. Mani Rajan**, *Novel nested anti-resonant fiber based magnetic fluids sensor: Performance and bending effects inspection*, Journal of Magnetism & Magnetic Materials 538 (2021) 168230.
8. D. Vigneswaran, **M.S. Mani Rajan**, Mehtab Singh, Jyoteesh Malhotra, *System Investigations of Few-Mode Erbium-Doped Fiber Amplifier (FM-EDFA) for Vortex Mode Amplifications*, Journal of Computational Electronics (Springer) 20 (2021)1549-1559.
9. **M.S. Mani Rajan,** *Boomerons in a three-coupled NLS system with inhomogeneous dispersion and nonlinearity*, Waves in Random and Complex Media (Taylor & Francis) In Press 2021.
10. H.I. Abdel-Gawad, M. Tantawy, **M.S. Mani Rajan**, *Similariton regularized waves solutions of the (1+2)-dimensional nonautonomous BBME in shallow water and stability*, Journal of Ocean Engineering and Science (In Press) 2021.
11. N. Ayyanar, K.V. Sreekanth, G.Thavasi Raja, **M. S. Mani Rajan**, *Photonic Crystal Fiber-Based Reconfigurable Biosensor Using Phase Change Material*, IEEE Transactions on Nanobioscience, 20 (2021) 338.
12. S. Saravana Veni, **M.S. Mani Rajan**, Angelin Vithya, *Controllable Phase shift of optical soliton through nonlinear tunneling in a dual mode optical fiber*, Optik 242 (2021) 167094.

13. S.A. Mitu, K. Ahmed, F, H. Andullah, B.K.Paul**,** A, A, Zhahrani, S.K. Patel, **M. S. Mani Rajan**, *Exploring Optical Properties of Exposed-core based Photonic Crystal Fiber*, Journal of Computational Electronics 20 (2021) 1260-1269.

14. S.A. Mitu, K. Ahmed, F, A, A, Zhahrani, Amit Grover, **M. S. Mani Rajan,** M.A. Moni, *Development and analysis of surface plasmon resonance based refractive index sensor for pregnancy testing*, Optics & Lasers in Engineering 140 (2021) 106551.
15. D. Vigneswaran, **M. S. Mani Rajan,** N. Ayyanar, S.K. Patel, *Numerical investigation of dual guided elliptical ring core few-mode fiber for space division multiplexing applications,* Optik 228 (2021) 166111.
16. Mohit Sharma, Soni Sharma, Anuj Vijay, D. Vigneswaran, **M. S. Mani Rajan,** *Ultra-short pulse for plasma induced THz generation using carbon nano tubes*, Optical and Quantum Electronics 53 (2021) 63.
17. P. Mahalakshmi, S. Arun Prakash, **M. S. Mani Rajan,** *Design of germanium core with anisotropic metamaterial cladding optical fiber in mid-infrared range applications*, Optical and Quantum Electronics 52 (2020) 298.
18. Sofyan A. Taya, Nael Doghmosh, Zaher M. Nassar, **M. S. Mani Rajan,** D. Vigneswaran, *Refractometric sensor based on slab waveguides of simultaneously negative permittivity and permeability materials*, Optical and Quantum Electronics 52 (2020) 519.
19. K.V. Sreekanth, P. Mahalakshmi, S. Han, D. Vigneswaran, **M. S. Mani Rajan**, *A Terahertz Brewster Switch based on Superconductor Hyperbolic Metamaterial*, Journal of Applied Physics (AIP) 128 (2020) 173106.
20. Mehtab Singh, J. Malhotra, **M. S. Mani Rajan,** D. Vigneswaran, H. Aly. Moustafa, *A Long-Haul 100 Gbps Hybrid PDM/CO-OFDM FSO Transmission System: Impact of Climate Conditions and Atmospheric Turbulence*, Alexandria Engineering Journal 60 (2021) 785.
21. **M. S. Mani Rajan**, *Transition from bird to butterfly shaped nonautonomous soliton and soliton switching in erbium doped resonant fiber*, Physica Scripta (IOP) 95 (2020) 105203.
22. D. Vigneswaran, **M. S. Mani Rajan**, Bipul Biswas, Kawsar Ahmed, *Exploring next generation of IOT devices compatible few mode assisting ring core elliptical cladding optical fiber*, Wireless Networks (Springer) 26 (2020) 3217–3225.

23. Aparna A. Nair, **M.S. Mani Rajan**, M. Jayaraju, V. Natarajan, *Impact of fourth order dispersion on modulational instabilities in asymmetrical three-core optical fiber*, Optik 215 (2020) 164758.
24. Aparna A Nair, A. Bisharathu Beevi, K.Subramanian, **M. S. Mani Rajan,** *Influence of septic nonlinearity on modulation instability under normal and anomalous dispersion regime*, Optik 204 (2020) 164114.
25. S. Vijayalekshmi, A. Mahalingam, A. Uthayakumar, **M.S. Mani Rajan**, *Oscillating soliton propagation in SPNLS equation with symmetric potentials*, Optik 221 (2020)165143.
26. V. Devika and **M. S. Mani Rajan**, *Hexagonal PCF of honeycomb lattice with high birefringence and high nonlinearity*, International Journal of Modern Physics B (World Scientific), 33 (2020) 2050094.
27. Md. Anowar Kabir, Md. Mehedi Hassan, Kawsar Ahmed, **M.S. Mani Rajan**, Arafa H Aly, Md. Nadim Hossain, Bikash Kumar Paul, *Novel Spider Web Photonic Crystal Fiber for Robust Mode Transmission applications with Supporting Orbital Angular Momentum Transmission Property*, Optical and Quantum Electronics 52(2020)331.
28. N.R. Ramanujam, Shobhit K.Patel, N. Manohar Reddy, Sofyan A.Taya, D.Vigneswaran, **M.S. Mani Rajan**, *One-dimensional ring mirror-defect photonic crystal for detection of mycobacterium tuberculosis bacteria*, Optik 219 (2020) 165097.
29. Mehtab Singh, Jyoteesh Malhotra, **M.S. Mani Rajan**, D. Vigneswaran, H. Aly. Moustafa, *Performance evaluation of 6.4 Tbps dual polarization quadrature phase shift keying Nyquist-WDM superchannel FSO transmission link: Impact of different weather conditions*, Alexandria Engineering Journal 59 (2020) 977–986.
30. P. Mahalakshmi, S. Arun Prakash, **M. S. Mani Rajan**, *Design of germanium core with anisotropic metamaterial cladding optical fiber in mid-infrared range applications*, Optical and Quantum Electronics 52 (2020) 298.
31. **M. S. Mani Rajan,** T.K. Nguyen, D. Vigneswaran, *Controllable soliton transmission structures in birefringence inhomogeneous non-Kerr Optical fiber*, Optik 216 (2020) 164908.
32. Angelin Vithya, **M.S. Mani Rajan**, *Impact of fifth order dispersion on soliton solution for higher order NLS equation with variable coefficients*, Journal of Ocean Engineering and Science 5 (2020) 205–213.

33. K.V. Sreekanth, P. Mahalakshmi, S. Han, **M. S. Mani Rajan**, P. K. Choudhury, and R. Singh, *Brewster Mode-Enhanced Sensing with Hyperbolic Metamaterial*, Adv. Optical Mater (Wiley). 2019, 1900680.
34. M. Suganthy, B. K. Paul, Kawsar Ahmed, Md. Ibadul Islam, Md. Asaduzzaman Jabin, Ali Newaz Bahar, **M.S. Mani Rajan**, *Analysis of optical sensitivity of analytes in aqua solutions*, Optik 178 (2019) 970–977.
35. I. S. Amiri, Siti Anis Khairani Alwi, S. A. Raya, N. A. M. Zainuddin, N. S. Rohizat, **M.S. Mani Rajan** and Rozalina Zakaria, *Graphene Oxide Effect on Improvement of Silver Surface Plasmon Resonance D-Shaped Optical Fiber Sensor*, J. Opt. Commun (DE GRUYTER) 2019.
36. R. Udaiyakumar, Naim Ben Ali, Bhupeshwaran Mani, **M.S. Mani Rajan**, P. Yupapin, I. S. Amiri, *Analytical and numerical demonstration of phase characteristics on two solitons under the influence of third-order dispersion*, Optical and Quantum Electronics, 51 (2019) 163.
37. F. S. Chaves, H. V. Posada, D. Vigneswaran, **M.S. Mani Rajan**, *Transmittance spectrum in a 1D photonic crystal composed fused silica and sea water*, Optik, 185 (2019) 930–935.
38. Aparna A. Nair, C.S. Boopathi, M. Jayaraju, **M.S. Mani Rajan**, *Numerical investigation and analysis of flattened dispersion for supercontinuum generation at very low power using Hexagonal shaped Photonic crystal fiber (H-PCF)*, Optik 179 (2019) 718–725.
39. Mohit Sharma, D. Vigneswaran, Julia S. Skibina, **M.S. Mani Rajan**, S. Konar, T. T. Hoang and Q. M. Ngo, *Giant Nonlinear AlGaAs-Doped Glass Photonic Crystal Fibers for Efficient Soliton Generation at Femtojoule Energy*, IEEE Photonics, 11 (2019) 7102411.
40. V. Arthi, Iraj S. Amiri, M.M. Ariannejad, P. Yupapin, S. Praveen Chakkravarthy, **M.S. Mani Rajan**, *Panda resonator structure to generate four-wave mixing by nonlinear effect*, Optik, 180 (2019) 900–905.
41. R. Kanmani, Kawsar Ahmed, Subrata Roy, Fahad Ahmed, Bikash Kumar Paul, **M.S. Mani Rajan**, *The performance of hosting and core materials for slotted core QPCF in terahertz spectrum*, Optik 194 (2019) 163084.
42. P.J.Raghuraman, S.Bhagya Shree, **M.S. Mani Rajan,** *Soliton control with inhomogeneous dispersion under the influence of tunable external harmonic potential*, Waves in Random and Complex Media (Taylor & Francis) 31 (2021) 474-485.
43. G. Karthikeyaraj, **M.S. Mani Rajan**, M. Tantawy, K. Subramanian, *Periodic oscillations and nonlinear tunneling of soliton for Hirota-MB equation in inhomogeneous fiber*, Optik, 181 (2019) 440–448.

44. N. Prathap, S. Arunprakash, **M.S. Mani Rajan**, M. Tantawy, *Optical solitons and their shaping in a monomode optical fiber with some inhomogeneous dispersion profiles*, Optik, 192 (2019) 162906.
45. S. Vijayalekshmi, A. Mahalingam, A. Uthayakumar, **M.S. Mani Rajan**, *Multi-soliton propagation in generalized inhomogeneous NLS equation with symmetric potentials*, Optik, 181 (2019) 948–955.
46. I.S. Amiri, Md. Abdul Khalek, Sujan Chakma, Bikash Kumar Paul, Kawsar Ahmed, D.Vigneswaran, **M.S. Mani Rajan**, *Design of Ge20Sb15Se65 embedded rectangular slotted quasi photonic crystal fiber for higher nonlinearity applications*, Optik, 184 (2019) 63–69.
47. S.Maheswaran, Bikash Kumar Paul, Md. Abdul Khalek, Sujan Chakma, Kawsar Ahmed, **M.S. Mani Rajan,** *Design of tellurite glass based quasi photonic crystal fiber with high nonlinearity*, Optik, 181 (2019) 185–190.
48. Angelin Vithya, **M. S. Mani Rajan**, *Attosecond soliton shaping through dispersion tailoring technique in a monomode optical fibe*r, Optik 167 (2018) 196-203.
49. G. Karthikeyaraj, R. Udaiyakumar, **M.S. Mani Rajan,** *Preventable interaction of attosecond soliton in an inhomogeneous lossy fiber: Application to dispersion and nonlinearity management*, Optik 158 (2018) 753-761.
50. D. Vigneswaran, N. Ayyanar, Mohit Sharma, M. Sumathi, **M.S. Mani Rajan**, K. Porsezian, *Salinity sensor using photonic crystal fiber*, Sensors and Actuators A 269 (2018) 22–28.
51. Angelin Vithya, **M. S. Mani Rajan**, S. Arun Prakash, *Combined effects of frequency and higher-order effects on soliton conversion in an erbium fiber with inhomogeneous broadening*, Nonlinear Dynamics 91 (2018) 687–696.
52. N. Prathap, S. Arunprakash, **M.S. Mani Rajan**, K. Subramanian, *Multiple dromion excitations in sixth order NLS equation with variable coefficients*, Optik 158 (2018) 1179-1185.
53. S. Vijayalekshmi, A. Mahalingam, **M.S. Mani Rajan,** *Symbolic computation on tunable nonautonomous solitons in inhomogeneous NLS system with generalized external potential*, Optik, 145 (2017) 240-249.
54. H. Thenmozhi, **M.S. Mani Rajan**, V. Devika, D. Vigneswaran, N. Ayyanar, *D-glucose sensor using photonic crystal fiber*, Optik 145 (2017) 489–494.

55. P. Mahalakshmi, S. Venkatesh, M. Sumathi, R. Yamunadevi, N. Ayyanar, **M. S. Mani Rajan,** *Manipulating high birefringence in elliptical core meta fiber by varying metal/dielectric concentration of the framed AMM***,** Optical and Quantum Electronics, 49 (2017) 202.
56. D. Vigneswaran, N. Ayyanar, M. Sumathi, **M. S. Mani Rajan**, *Tunable differential modal gain in FM-EDFA system using dual pumping scheme at 100Gbps system capacity,* Photon Netw Commun 34 (2017) 451-460.
57. N. Ayyanar**,** D. Vigneswaran, Mohit Sharma, M. Sumathi, **M.S. Mani Rajan,** S. Konar, *Hydrostatic Pressure Sensor Using High Birefringence Photonic Crystal Fibers*, IEEE Sensors, 17 (2017) 650.
58. K. Subramanian, T. Alagesan, A. Mahalingam, **M. S. Mani Rajan,** *Propagation properties of optical soliton in an erbium-doped tapered parabolic index nonlinear fiber: soliton control*, Nonlinear Dynamics 87 (2017) 1575.
59. **M. S. Mani Rajan**, *Unexpected Behavior on Nonlinear Tunneling of Chirped Ultrashort Soliton Pulse in Non-Kerr Media with Raman Effect***,** Zeitschrift für Naturforschung A, 71 (2016) 751.
60. **M. S. Mani Rajan**, *Dynamics of optical soliton in a tapered erbium-doped fiber under periodic distributed amplification system*, Nonlinear Dynamics 85 (2016) 599.
61. S. Arun Prakash, V. Malathi, **M. S. Mani Rajan**, Shally Loomba, *Controllable pulse width of bright similaritons in a tapered graded index diffraction decreasing waveguide*, Chaos (AIP), 26 (2016) 033115.
62. S. Arun Prakash, V. Malathi, **M.S. Mani Rajan,** *Tailored dispersion profile in controlling optical solitons in a tapered parabolic index fiber*, J. Mod. Opt. 63 (2016) 468.
63. **M.S. Mani Rajan**, A. Mahalingam, *Nonautonomous solitons in modified inhomogeneous Hirota equation: soliton control and soliton interaction*, Nonlinear Dynamics 79 (2015) 2469.
64. Mahalingam, **M.S. Mani Rajan**, *Influence of generalized external potentials on nonlinear tunneling of nonautonomous solitons: Soliton management*, Optical Fiber Technology 25 (2015) 44.
65. S. Vijayalekshmi, **M.S. Mani Rajan**, A. Mahalingam, A. Uthayakumar, *Hidden possibilities in soliton switching through tunneling in erbium doped birefringence fiber with higher order effects*, J. Mod. Opt. 62 (2015) 278.

66. S. Vijayalekshmi, **M.S. Mani Rajan**, A. Mahalingam, A. Uthayakumar, *Investigation on nonautonomous soliton management in generalized external potentials via dispersion and nonlinearity*, Indian J. Physics, 89 (2015) 957.
67. **M.S. Mani Rajan**, A. Mahalingam, A. Uthayakumar, *Nonlinear tunneling of optical soliton in 3 coupled NLS equation with symbolic computation*, Annals of Physics, 346 (2014) 1.
68. Shally Loomba, **M.S. Mani Rajan**, Rama Gupta, Harleen Kaur, C.N. Kumar, *Nonlinear tunneling of optical similaritons in a tapered graded-index*, Optics Communications, 324 (2014) 286.
69. Shally Loomba, **M.S. Mani Rajan**, Rama Gupta, A. Mahalingam, *Soliton propagation in negative-index materials with self-steepening effect*, Eur. Phys. J. D, 68 (2014) 130.
70. Shally Loomba, Rama Gupta, Harleen Kaur, **M.S. Mani Rajan**, *Self-similar rogue waves in an inhomogeneous generalized nonlinear Schrödinger equation*, Physics Letters A, 378 (2014) 2137.
71. **M.S. Mani Rajan**, A. Mahalingam, *Multi-soliton Propagation in a Generalized Inhomogeneous Nonlinear Schrödinger-Maxwell-Bloch system with Loss/gain Driven by an External Potential*, Journal of Math. Physics, 54 (2013) 043514.
72. **M.S. Mani Rajan**, A. Mahalingam, A. Uthayakumar, K. Porsezian, *Observation of two soliton propagation in an Erbium doped fiber system with distributed coefficients*, Communication in Nonlinear Science and Numerical Simulation, 18 (2013) 1410.
73. **M.S. Mani Rajan,** J.Hakkim, A. Mahalingam, A. Uthayakumar, *Dispersion management and cascade compression of femtosecond nonautonomous soliton in birefringent fiber*, Eur. Phys. J. D, 67 (2013) 150.
74. **M.S. Mani Rajan**, A. Mahalingam, A. Uthayakumar, *Nonlinear tunneling of nonautonomous optical solitons in combined nonlinear Schrödinger and Maxwell-Bloch systems*, J. Optics (IOP), 14 (2012)105204.
75. A. Mahalingam, K. Porsezian, **M. S. Mani Rajan**, A. Uthayakumar, *Propagation of dispersion–nonlinearity-managed solitons in an inhomogeneous erbium-doped fiber system*, J. Phys. A: Math. Theor (IOP). 42 (2009).

11. INTERNATIONAL CONFERENCE

	PAPER TITLE	CONFERENCE TITLE	ORAL or POSTER
1	**Interaction of optical solitons in an Inhomogeneous erbium doped fiber system**	International Conference on Optics and Photonics (ICOP 2009 Oct30-Nov 1) (CSIR), CHANDIGARH.	Poster
2	**Interaction of optical solitons in an inhomogeneous erbium doped fiber system**	International conference on Innovative computing Technology (ICICT 2009) Sri Sairam Engg College Tambaram, Chennai	Oral
3	**Optical soliton propagation in an inhomogeneous Maxwell-Bloch system**	Indian Institute of Technology (IIT) Guwahati, India	Poster
4	**Bright soliton propagation in inhomogeneous N-coupled nonlinear Schrödinger system using Darboux-transformation**	SPIE, JAN 21-26,2012 San Francisco, California United States.	Accepted
5	**Quantum Tunneling Effects on Optical Soliton Switching in an Erbium Doped Fiber**	Photonics 2012 Dec 9-12, 2012 IIT madras	Oral
6	**Cascade compression of Soliton through tunneling effect in birefringent fiber**	International conference on photonics 2013 UAE, Dubai Jan 30-31, 2013	Poster
7	**Soliton interaction in WDM system**	Malaysia Dec 3 & 4, 2015	Oral & Session chair
8	**Design of temperature sensor using liquid filled photonic crystal fiber**	IEEE-CRALT Bangalore	Oral
9	**Design of Elliptical Ring Core Fiber With Support Of Four LP Modes in SDM Applications**	CUSAT, APW Feb 2016	Oral
10	**Design Of Twisted Dual Core Photonic Crystal Fiber For Sensing Application**	NCNSD Kolkata Dec 16-18,2016	Oral
11	**Soliton Management in an Erbium Doped Tapered Nonlinear Fiber**	NCNSD Kolkata	Oral

		Dec 16-18,2016	
12	**D glucose sensor using Photonic Crystal Fiber**	NLS 26 BARC Mumbai Dec 2017	Poster
13	ICNDA 2022: International Conference on Nonlinear Dynamics and Applications	**Sikkim Manipal Institute of Technology (SMIT), Majitar, Sikkim 737136** March 9-11, 2022 **(Physical Mode)**	Oral

12. NATIONAL CONFERENCE

1	**PAPER TITLE**	**CONFERENCE TITLE**	**ORAL or POSTER**
	Dispersion Management Soliton Propagation In An Inhomogeneous Fiber	PHYSICAL RESEARCH LABORATORY (PRL), Ahmedabad, GUJARAT	Poster
2	Effect Of Third Order Dispersion On Soliton Propagation In An Inhomogeneous Optical Fibers	NCDC 2012 RMK COLLEGE CHENNAI APRIL 21 ,2012	Oral
3	Nonlinear tunneling of NLS-MB equation with variable coefficients	NCNSD 2012 July 12-15 At IISER, Pune	Poster
4	Compression of optical soliton through tunneling in birefringent fiber with higher order effects	8^{th} conference on nonlinear systems and dynamics IIT Indore Dec 11-14, 2013	Poster
5.	Solitary Waves in a Generalized Inhomogeneous NLS Equation with Symmetric Potentials	IISER Mohali March 13-15	Contributed Talk

13. WINTER SCHOOL / SUMMER SCHOOL/ TRAINING PROGRAM/ WORKSHOP

	TITLE	**PLACE**	**DURATION**
1.	Nonlinear dynamics	INDIAN ASSOCIATION FOR CULTIVATION OF SCIENCES (IACS), KOLKATTA.	ONE MONTH
2.	Summer Training Program in Physics (**STPIP-2003**)	DEPT OF NUCLEAR PHYSICS, MADRAS UNIVERSITY, GUINDY, CHENNAI.	ONE MONTH
3.	Modeling Photonic Devices	**SSN College of Engineering Chennai**	30-31, March 2015

4.	COMSOL Multiphysics (Hands on Training)	**COMSOL Multiphysics Pvt Ltd** **Pune (Maharashtra)**	29-30, October 2015
5.	Nuclear Power – An Economical source of energy	**Mepco Schlenk Engineering College, Sivakasi** **&** **Kudankulam Nuclear Power Project**	19 August 2016
6.	UGC Sponsored Orientation Programme	**Human Resource Development Centre,** **Madurai Kamaraj University, Madurai**	Feb 05 to Feb 25 2020
7.	**Industrial Training for Faculty** Communication and Networking Technologies	**RGMTTC, BSNL, Chennai**	May 26 to June 13, 2020
8.	Terahertz Band: Next Frontier for Wireless Communication	**IFET College of Engineering Villupuram** **(Online Mode)**	July 20 to July 25, 2020
9.	Metamaterial & Its Applications	**IEEE Delhi section** **(Online)**	July 27 to July 31, 2020

14. SYMPOSIUM ATTENDED

	PAPER TITLE	TOPIC PLACE	DURATION
1	Propagation of Two Soliton in an Erbium Doped Inhomogeneous Lossy Fiber with Phase Modulation	OPTICS AND PHOTONICS (FOP2011) IIT Delhi	DEC 3-5,2011
2	Tunneling Effects on Optical Solitons in an Erbium Doped Fiber	OPTICS AND PHOTONICS (FOP2011) IIT Delhi	DEC 3-5,2011
3	Pulse compression of SIT solitons through nonlinear tunneling effects	DAE-BRNS-NATIONAL LASER SYMPOSIUM, ANNA UNIV, CHENNAI 600025	9-12, JAN,2012
4	Cascade compression of optical Soliton through tunneling in birefringent fiber	SV University, Tirupathi (AP)	Dec 3-6,2014
5	Multi soliton solutions in generalized nonautonomous nonlinear Schrödinger equation with an inhomogeneous external potential using Darboux transformation	SV University, Tirupathi (AP)	Dec 3-6,2014

6	DAE-BRNS-National Laser Symposium (NLS-26)	**Bhabha Atomic Research Centre Mumbai (Maharashtra)**	20-23, December 2017
7	National Photonics Symposium (NPS - 2018)	**International School of Photonics CUSAT, Cochin, Kerala**	Feb 27,28 & Mar 01 2018

15. MEMBER IN PROFESSIONAL BODIES

- Life member in Indian Laser Association (ILA)
- Life member in Materials Research Society of India (MRSI)
- Life member in Optical Society of India (OSI)
- Life member in Indian Physics Association (IPA)
- Life member in Photonics Society of India (PSI)

16. Research IDs

(i) Google Scholar: https://scholar.google.com/citations?user=CDVVS1kAAAAJ&hl=en

(ii) ORCID ID : 0000-0003- 0562-2469

(iii) Researcher ID (WOS): N-2208-2016

(iv) Scopus ID : 27967899500

(v) Vidwan ID : 192678

17. Invited Talk

S.No	Date	Institution	Title of the talk
1.	**29.1.2013**	Vivekananda college, Madurai	Recent Trends in Optical Communication
2.	**13.7.2017**	Govt. of Tamilnadu, Department of School Education, (Rashtriya Madhyamik Shiksha Abhiyan – RMSA), In-service Training Program for Secondary Science Teachers, Venue: Mohamed Sathak Dasthagir B.Ed College, Collectorate	Recent achievement in Science & Technology (Training for secondary Teachers)

		Ramanathapuram	
3.	**11.6.2018**	7 days FDP on EC6702 Optical Communication & Networks, Dept of ECE, UCE Ramanathapuram	Overview of Optical Fiber Communication
4.	**13.8.2019**	SRMIST Ramapuram Chennai	Optical Fibers for sensing Applications
5.	**19.1.2018**	7 days FDP on PH8251 Material Science, SAEC, Ramanathapuram	Dielectric Materials
6.	**23.1.2018**	7 days FDP on PH8251 Material Science, SAEC, Ramanathapuram	Dielectric Applications
7.	**31.1.2020**	AICTE Sponsored FDP on Cost effective technologies for Zero Waste Management, Mohamed Sathak Polytechnique College	Optical Sensors for waste management
8.	**29.7.2020**	RMK College of Engineering & Technology (Online Mode)	Advanced fiber technology for various sensing applications
9.	**22.9.2020**	SRMIST Ramapuram Chennai (Online Mode)	Modern Communication Systems
10	**06.2.2021**	Pathyusha Engineering College Chennai (Online Mode)	Fiber Optics & Its application
11	**29.5.2021**	Pathyusha Engineering College Chennai (Online Mode)	Research Prospects in Optical Devices
12	**5.7.2021**	*International Online Faculty Development Program* on Emerging Trends in Science and Technology by Easwari Engineering College, Ramapuram, Chennai – 89. (1.7.2021-6.7.2021)	Fundamental of Nonlinear Fiber Optics
13	**20.9.2021**	*Two Week International Faculty Development Program* on Advanced Computational and Experimental Research in Physics (13.9.2021-25.9.2021)	Photonic Crystal Fiber for Bio-Sensing Applications
14	**4.6.2022**	Invited Talk (Physical Mode)	Optical Communication & Devices

15	**20.6.2022**	*One week online National level Faculty Development Program on Advanced Computational and Experimental Research in Physics*	Role of computation in Nonlinear Dynamics

DECLARATION

I declare that the information and facts furnished above are true and correct to the best of my knowledge and belief.

Place: Rameswaram (**Dr. M.S. Mani Rajan**)
Date: 14.06.2022