



डॉ. अंजनी कुमार तिवारी

सहायक प्राध्यापक

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भारतीय प्रौद्योगिकी संस्थान रूड़की
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Academic qualification:

- **Doctor of Philosophy:** Tata Institute of Fundamental Research, Mumbai, India (July 2008 - January 2014)
- **Master of Science:** Department of Physics, C.C.S. University Meerut (2007) (Ist division)
- **Bachelor of Science:** (PCM Group), N.A.S. College Meerut (2005) (Ist division)
- **Intermediate:** K.K. Jain Inter College Khatauli, U.P. Board (2002) (Ist division)
- **High School:** H.K. Inter College Sakhoti, U.P. Board (2000) (Ist division)

Work experience:

- July 2022 - Present: Joint Faculty, Centre for Photonics and Quantum Communication Technology, Indian Institute of Technology Roorkee, India.
- April 2021 - Present: Assistant Professor, Department of Physics, Indian Institute of Technology Roorkee, India.
- May 2017 - April 2021: DST INSPIRE Faculty Fellow, Indian Institute of Technology Kanpur, India.
- May 2016 - April 2017: Senior Project Scientist, Indian Institute of Technology Kanpur, India.
- March 2014 - February 2016: Postdoctoral Research Fellow, European Laboratory for Non-Linear Spectroscopy (LENS), Italy.

Fellowships and awards:

- **Featured in top 5 faculty for Excellence in Teaching Award in the UG category of 80+ students, IIT Roorkee (2025).**
- **Featured in top 5 faculty for Excellence in Teaching Award in UG category (30+ students) instructed by Young Faculty, IIT Roorkee (2025).**
- **Outstanding performance in the Faculty Performance Appraisal Report of the academic session 2023-24, IIT Roorkee.**
- **Featured in top 5 faculty for Outstanding Teaching in the UG category of 80+ students, IIT Roorkee, 2024.**
- **INSA Medal for Young Scientists 2019.**
- **Excellence in Oral Presentation** award at Photonics 2018.
- **INSPIRE Faculty Award** from Department of Science & Technology, India (July 2016).
- **1st Prize by OSA** for Best Student Paper Award at Photonics 2012.
- **Best Poster Presentation Award** by the Indian Laser Association at National Laser Symposium NLS-20 (2012).
- **TIFR Scholarship 2008:** Selected by the test and interview to receive research scholarship to attend graduate school at TIFR.
- **CSIR-NET-June 2007** and **UGC-NET-December 2007** Selected for junior research fellowship.
- **GATE-2006** and **GATE-2007** Qualified.
- **Secured 3rd** position in graduation at college (2005).

Short term visits:

- Visited TIFR from 21 May to 05 June 2019.

Research interests:

- Light amplification in disordered amplifying structures, lasing in liquid crystal elastic materials and nanostructured thin film metamaterials, light-driven soft robots.
- Quantum optics, Photonic crystals, Topological photonics, metamaterial absorber, plasmonics and mesoscopic phenomena like Anderson localization.
- Study of light interaction with microstructures using analysis tools like Transfer Matrix method, Finite Difference Time Domain method, Monte Carlo simulation, and COMSOL, etc.
- Near field studies of passive and active nanostructured materials using Near Field Scanning Optical Microscope.

Research projects:

- **Experimental investigations of Transport and Modal Properties in non-Hermitian coupled Photonic Systems**, Scheme for Transformational and Advanced Research in Sciences, Ministry of Human Resource Development (MHRD), 2023-2026, 49.5 lakh, (sole PI).
- **Liquid crystal elastomer-based opto-mechanical control of photonic resonators**, Start-up Research Grant, Science and Engineering Research Board (SERB), 2022-2024, 30 lakh, (sole PI).
- **Optical properties of light-driven smart microstructures**, Faculty Initiation Grant, IIT Roorkee, 2022-2024, 20 lakh, (sole PI).
- **Light amplification and lasing in plasmonic nanostructured thin film metamaterials**, DST Inspire Faculty Award, Department of Science and Technology, 2017-2022, 35 lakh, (sole PI).

Teaching engagements:

- Physics-1 (PHI-101), Autumn 2026-27, BTech 1st year, IIT Roorkee.
- Quantum Electronics and Devices (PHC-308), Spring 2025-26, BTech 3rd year, IIT Roorkee (Student feedback 4.43/5).
- Thermal and Statistical Physics (PHC-203), Autumn 2025-26, BTech 2nd year, IIT Roorkee (Student feedback 4.72/5).
- Applied Optics (PHC-214), Spring 2024-25, BTech 2nd year, IIT Roorkee (Student feedback 4.08/5).
- Mechanics, Autumn 2024-25 and Autumn 2025-26, NPTEL Online Certification Courses.
- Thermal and Statistical Physics (PHC-203), Autumn 2024-25, BTech 2nd year, IIT Roorkee (Student feedback 4.05/5).
- Applied Optics (PHN-212), Spring 2023-24, BTech 2nd year, IIT Roorkee (Student feedback 4.59/5).
- A Primer in Quantum Technology (IPQ-301), 07 Lectures were given in Spring 2023-24, BTech 3rd year, IIT Roorkee.
- Physics-1 (PHI-101), Autumn 2023-24, BTech 1st year, IIT Roorkee (Student feedback 4.21/5).
- Electromagnetic Theory (PHN-008), Spring 2022-23, BTech 1st year, IIT Roorkee (Student feedback 4.52/5).
- Mechanics (PHN-001), Autumn 2022-23, BTech 1st year, IIT Roorkee (Student feedback 4.53/5).
- Electromagnetic Theory (PHN-008), Spring 2021-22, BTech 1st year, IIT Roorkee (Student feedback 4.32/5).
- Mechanics (PHN-001), Autumn 2021-22, BTech 1st year, IIT Roorkee (Student feedback 4.62/5).
- Applied Optics lab (PH-212), Spring 2023-24 & Spring 2024-25 BTech 2nd year, IIT Roorkee.

- Physics Lab–V (PHC-318), Spring 2025-26, IIT Roorkee.
- Physics Lab–II (P PHC-207, Digital Electronics and Thermal Physics), Autumn 2024-25 & Autumn 2025-26, BTech 2nd year, IIT Roorkee.
- Laboratory Work (PH-502), Spring-2022-23, MSc Physics 1st year, IIT Roorkee.
- Physics Laboratory (PH-106), Spring 2021-22, B. Tech 1st year, IIT Roorkee.
- Laboratory Work in Photonics (PHN-711), Autumn 2021-22, & Autumn 2022-23, MTech Photonics 1st year, IIT Roorkee.
- UG Lab (PHY 101L), 2nd Semester, 2018-19, & 2019-20 IIT Kanpur.
- Optics Lab (PHY 224L), 1st Semester, 2018-19 IIT Kanpur.

Administrative positions:

- Member, Centre Faculty Search Committee, Centre for Photonics and Quantum Communication Technology, IIT Roorkee (16 Feb 2026 - 15 Feb 2028)
- Warden, Rajendra Bhawan, IIT Roorkee (01 Jan 2026 - 31 Dec 2026)
- Member, SRIC Committee, Center for Photonics and Quantum Communication Technology, IIT Roorkee (06 Oct 2025 - 30 Jun 2027)
- Member, Departmental Academic Programme Committee, Department of Physics, IIT Roorkee (15 July 2025 - 14 July 2027)
- Member, Departmental Anti-Ragging Squads, Department of Physics, IIT Roorkee (18 July 2025 - 17 July 2026)
- Member, Departmental Administrative Committee, Department of Physics, IIT Roorkee (20 June 2025 - 19 June 2027)
- Member, Center Purchase Committee, Center for Photonics and Quantum Communication Technology, IIT Roorkee (21 Jan 2025 - 20 Jan 2026)
- Member, Advisory Committee of the International Relations, Center for Photonics and Quantum Communication Technology, IIT Roorkee (05 March 2024 - 04 March 2026)
- Convener, Department Faculty Search Committee, Department of Physics, IIT Roorkee (22 Jan 2024 - 31 Dec 2025)
- Member, Department Purchase Committee, Department of Physics, IIT Roorkee (01 Aug 2022 - 31 Jul 2023 and 17 Nov 2025 - 16 Nov 2026)
- Coordinator, PhD and MTech Attendance, Department of Physics, IIT Roorkee (26 Sept 2023 - 25 Sept 2025)
- PhD Selection Committee Chair (Photonics Group), Department of Physics, IIT Roorkee (Spring 2022 - 23, Autumn 2023 - 24, Autumn 2024 - 25)
- Coordinator, B.Tech. in Engineering Physics-2022 batch, Department of Physics, IIT Roorkee (01 Aug 2022 - 31 Jul 2026)
- Member, Departmental Research Committee, Department of Physics, IIT Roorkee (10 Nov 2022 - 31 Oct 2024)
- Center's Research Committee Member, Center for Photonics and Quantum Communication Technology, IIT Roorkee (16 Sept 2022 - 15 Sept 2024)
- Professor-in-charge, Laser Physics laboratory in Department of Physics, IIT Roorkee (27 July 2022 - Present)
- Treasurer, Indian Physics Association, Roorkee Chapter (26 May 2022 - Present)
- Department Web Management Committee Member, Department of Physics, IIT Roorkee (13 Jul 2021 - 30 Jun 2022)

Scientific reviewer:

- **Nature Research:** Nature Communications.
- **Optica:** Optics Letters, Optics Express.
- **Springer:** Applied Physics B: Lasers and Optics, Journal of Optics.
- **IOP Science:** Journal of Optics, Journal of Physics Communications.
- **Taylor & Francis:** Journal of Modern Optics.
- **World Scientific:** International journal of Modern Physics B.
- **American Institute of Physics:** Journal of Applied Physics.
- Various National and International conference proceedings and research proposals.

Member societies:

- OPTICA (2011 to 2022).
- Optics Society of India (Life Member).
- Indian Laser Association (Life Member).
- Indian Physics Association (Life Member).

Book chapters:

- [1] Nikita Choudhary, Anjani Kumar Tiwari, and Nitish Kumar Gupta, "Active Tunability in Resonant Metamaterials Using Phase Transitions," Handbook of Metamaterial Antennas, Measurement and Characterizations, **Singapore: Springer Nature Singapore**, 1-29 (2025).

List of articles in refereed journals:

- [1] Jyoti Mandal, Nitish Kumar Gupta, and Anjani Kumar Tiwari, "Persistence and selective modal excitation of topological interface state in one-dimensional periodic-on-average photonic crystal heterostructure," Under Review (2026).
- [2] Jyoti Mandal, Nitish Kumar Gupta, and Anjani Kumar Tiwari, "Polarization- and angle-dependent topological interface states in one-dimensional photonic crystal heterostructures containing birefringent materials," **Journal of the Optical Society of America B**, Vol. 43, No. 7, pp. B132-B140 (2026).
- [3] Nikita Choudhary, Diksha Sharma, Jyoti Mandal, and Anjani Kumar Tiwari, "Light-driven inching random laser," **Optics Letters**, Vol. 51, No. 4, pp. 1041-1044 (2026).
- [4] Diksha Sharma, Jyoti Mandal, and Anjani Kumar Tiwari, "Quasi-Bound State in Continuum Assisted Lasing in One-Dimensional Blazed Grating," **Optics Communications**, Vol. 606, pp. 132877 (2026).
- [5] Nikita Choudhary, Deependra Singh Gaur, Diksha Sharma, Anjani Kumar Tiwari, and Nitish Kumar Gupta, "Controlled Angular Correlations and Polarization Speckle in Scattering Birefringent Films," **Scientific Reports**, Vol. 15, pp. 35779 (2025).
- [6] Nikita Choudhary, and Anjani Kumar Tiwari, "Numerical investigation of wide-angle switchable and tunable refractive index-based metamaterial absorber," **Pramana-Journal of Physics**, Vol. 98, no. 97 (2024).
- [7] Nitish Kumar Gupta, Sapiroddy Srinivasu, Mukesh Kumar, Anjani Kumar Tiwari, Sudipta Sarkar Pal, Harshawardhan Wanare, and S. Anantha Ramakrishna, "Realization of Jackiw-Rebbi Zero-Energy Modes at Photonic Crystal Domain Walls: Emergence of Polarization-Indiscriminate Surface States," **Applied Physics Letters**, Vol. 124, pp. 091104 (2024).
- [8] Nitish Kumar Gupta, Sapiroddy Srinivasu, Mukesh Kumar, Anjani Kumar Tiwari, Sudipta Sarkar Pal, Harshawardhan Wanare and S. Anantha Ramakrishna, "Direct Determination of Photonic Stopband Topological Character: A Framework based on Dispersion Measurements," **Advanced Photonics Research**, pp. 2300155, (2024).

- [9] Nitish Kumar Gupta, Pradeep Chakravarthy, Mukesh Kumar, Anjani Kumar Tiwari, Sudipta Sarkar Pal, Kumar Vaibhav Srivastava, Harshawardhan Wanare, and S. Anantha Ramakrishna, "Complementary quarter-wave retardance device for generating one or more polarization states," **Indian patent**, Application Number 202311056800, (2023).
- [10] Nitish Kumar Gupta, Aditi Chopra, Mukesh Kumar, Anjani Kumar Tiwari, Sudipta Sarkar Pal, Harshawardhan Wanare and S. Anantha Ramakrishna, "Surface State Engineering Using Bulk-Band Geometric Phases: Band Inversion and its Observable Implications in One-Dimensional Photonic Crystals" **Indian Journal of Pure and Applied Physics: Special issue on "Recent Trends in Nanophotonics"** Vol. 61, no. 7, pp. 560-567 (2023).
- [11] Nitish Kumar Gupta, Mukesh Kumar, Anjani Kumar Tiwari, Sudipta Sarkar Pal, Harshawardhan Wanare, and S. Anantha Ramakrishna, "Spectroscopic Ellipsometry-based Investigations into the Scattering Characteristics of Topologically Distinct Photonic Stopbands," **Applied Physics Letters**, Vol. 121, Issue 26, pp. 261103 (2022).
Chosen as a **Featured Article in APL**
- [12] Nitish Kumar Gupta, Sapireddy Srinivasu, Anjani Kumar Tiwari, Harshawardhan Wanare and S. Anantha Ramakrishna, "Realizing Quasi-monochromatic Switchable Thermal Emission from Electro-Optically induced Topological Phase Transitions," **Scientific Reports**, Vol.12, pp. 7400 (2022).
- [13] Nitish Kumar Gupta, Anjani Kumar Tiwari, Harshawardhan Wanare and S. Anantha Ramakrishna, "Near singular-phase optical biosensing with strongly coupled modes of a plasmonic-photonic trimer," **Journal of Optics**, Vol. 23, no. 6, pp. 065003 (2021).
- [14] Rajesh Kumar, Anjani Kumar Tiwari, and S. Anantha Ramakrishna, "Surface plasmon coupling for selectively enhanced random lasing in periodically patterned silver columnar thin film metamaterials," **Applied Physics Letters**, Vol. 116, Issue 24, pp. 241902 (2020).
- [15] Alice Boschetti, Andrea Taschin, Paolo Bartolini, Anjani Kumar Tiwari, Lorenzo Pattelli, Renato Torre, and Diederik Wiersma, "Spectral super-resolution spectroscopy using a random laser," **Nature Photonics**, Vol. 14, Issue 3, pp. 177-182 (2020).
Earned the March 2020 cover of Nature Photonics.
- [16] Saleem Shaik, Anjani Kumar Tiwari, and S. Anantha Ramakrishna, "Refractive index sensor based on goldcoated nanoporous anodic alumina membranes to discriminate alcohol mixtures," **Pramana-Journal of Physics**, Vol. 93, Issue 2, pp. 30 (2019).
- [17] Anjani Kumar Tiwari, Lorenzo Pattelli, Renato Torre and Diederik S. Wiersma, "Remote control of liquid crystal elastomer random laser using external stimuli," **Applied Physics Letters**, Vol. 113, Issue 1, pp. 013701 (2018).
Chosen as a **Featured Article in APL** and also appeared in the **Scilight** which highlights the most interesting research published in AIP journals.
- [18] Anjani Kumar Tiwari, Saleem Shaik and S. Anantha Ramakrishna, "Lasing in dye-infiltrated nanoporous anodic alumina membranes," **Applied Physics B**, Vol. 124, Issue 7, pp. 127 (2018).
- [19] Anjani Kumar Tiwari, Ismail Mekaoui-Alaoui, Sriram Guddala, and S. Anantha Ramakrishna, "Enhanced visualization of latent fingerprints on rough aluminum surfaces using sequential Au and Zn/ ZnS/ ZnO depositions," **Journal of Forensic Sciences**, Vol. 63, Issue 4, pp. 1275-1281 (2017).
- [20] Anjani Kumar Tiwari, K. Shadak Alee, Ravitej Uppu, and Sushil Mujumdar, "Single-mode, quasi-stable coherent random lasing in an amplifying periodic-on-average random system," **Applied Physics Letters**, Vol. 104, Issue 13, pp. 131112 (2014).
- [21] Anjani Kumar Tiwari and Sushil Mujumdar, "Random lasing over gap states from a quasi-one-dimensional amplifying periodic-on-average random superlattice," **Physical Review Letters**, Vol. 111, Issue 23, 233903 (2013).
- [22] Anjani Kumar Tiwari, Ravitej Uppu, and Sushil Mujumdar, "Experimental demonstration of small-angle bending in an active direct-coupled chain of spherical microcavities," **Applied Physics Letters**, Vol. 103, Issue 17, pp. 171108 (2013).
- [23] Rajesh V. Nair, Anjani Kumar Tiwari, Sushil Mujumdar, B. N. Jagatap, "Inhibition and enhancement of spontaneous emission using photonic band gap structures," **Advanced Materials Letters**, Vol. 4, Issue 6, pp. 497-501 (2013).

- [24] Anjani Kumar Tiwari, Ravitej Uppu, Sushil Mujumdar, "Frequency behavior of coherent random lasing in diffusive resonant media," **Photonics and Nanostructures - Fundamentals and Applications**, Vol. 10, Issue 4, pp. 416-422 (2012).
- [25] Anjani Kumar Tiwari, Balu Chandra, Ravitej Uppu, and Sushil Mujumdar, "Collective lasing from a linear array of dielectric microspheres with gain," **Optics Express**, Vol. 20, Issue 6, pp. 6598-6603 (2012).
- [26] Anjani Kumar Tiwari, Ravitej Uppu, and Sushil Mujumdar, "Aerosol-based coherent random laser," **Optics Letters**, Vol. 37, Issue 6, pp. 1053-1055 (2012).
- [27] Ravitej Uppu, Anjani Kumar Tiwari, and Sushil Mujumdar, "Identification of statistical regimes and crossovers in coherent random laser emission," **Optics Letters**, Vol. 7, Issue 4, pp. 662-664 (2012).
- [28] Rajesh V. Nair, Anjani Kumar Tiwari, Sushil Mujumdar, and B. N. Jagatap, "Photonic-band-edge-induced lasing in self-assembled dye-activated photonic crystals," **Physical Review A**, Vol. 85, Issue 2, 023844 (2012).
Appeared in **Optics and Photonics news** (May 2012).
Highlighted in **Nature India** (March 2012).

International conference proceedings:

- [1] Diksha Sharma, Nikita Choudhary, and Anjani Kumar Tiwari, "On-chip Random Lasing from the Collection of Quasi-monodispersed Microdroplets," FiO LS 2026, Rochester, New York (Submitted 2026).
- [2] Nikita Choudhary, Diksha Sharma, and Anjani Kumar Tiwari, "Light-driven Soft Robot integrated with FRET-assisted Random Lasing Tip," FiO LS 2026, Rochester, New York (Submitted 2026).
- [3] Jyoti Mandal, Nitish Kumar Gupta, and Anjani Kumar Tiwari, "Selective Topological-Interface-State Lasing in Disordered Photonic Heterostructures," FiO LS 2026, Rochester, New York (Submitted 2026).
- [4] Prahlad Madhavan Veervalli, Saksham Aryan, Ardra Muriyankandathil, Anjani Kumar Tiwari, and Nitish Kumar Gupta, "Variational Quantum Eigensolver Benchmarking of the Su-Schrieffer-Heeger Model: Ansatz-Conditional Bulk-Spectrum Resolution," International Conference on Emerging Techniques in Computational Intelligence (ICETCI), Mahindra University, Hyderabad (19 - 22 August, 2026).
- [5] Nikita Choudhary, Diksha Sharma, Jyoti Mandal, and Anjani Kumar Tiwari, "Remotely controlled inching millibot integrated with an optical source," DOI: **10.1109/PIERS-Spring66516.2025.11276413**, Liquid Crystals Optics and Photonic Devices II, SPIE Photonics Europe, Strasbourg, France (13 - 16 April, 2026).
- [6] Diksha Sharma, Jyoti Mandal, and Anjani Kumar Tiwari, "Quasi-bound state in continuum induced lasing in a blazed grating," JSAP Spring Meeting, Tokyo, Japan (15 - 18 March, 2026).
- [7] Nitish Kumar Gupta, and Anjani Kumar Tiwari, "Experimental Markers for Photonic Stopband Topological Character Identification: Polarization-Discriminated Dispersion and Its Applications," DOI: **10.1109/PIERS-Spring66516.2025.11276413**, Photonics & Electromagnetics Research Symposium-Spring (PIERS), Abu Dhabi (04-08 May, 2025).
- [8] Diksha Sharma, Nitish Kumar Gupta, and Anjani Kumar Tiwari, "Gain-Loss Engineering and Study of Modal Interactions in Plasmonic-Photonic Heterostructures," 16th edition of International Conference on Fiber Optics and Photonics, IIT Kharagpur (12-15 December, 2024).
- [9] Nikita Choudhary, Diksha Sharma, Saikat Maity, Deependra Singh Gaur, Nitish Kumar Gupta, and Anjani Kumar Tiwari, "Polarization-Resolved Speckle Correlations in Scattering Birefringent Films," DOI: **10.1109/MAPCON61407.2024.10923571**, IEEE Microwaves, Antennas, and Propagation Conference (MAPCON), Hyderabad International Convention Centre, (09-13 December, 2024).
- [10] Nikita Choudhary, Deependra Singh Gaur, and Anjani Kumar Tiwari, "Grating Embedded Metal-based Self-reference Sensor," 71th JSAP Spring Meeting, Tokyo, Japan (Contributory Talk) (22-25 March, 2024).

- [11] Nikita Choudhary, and Anjani Kumar Tiwari, "Numerical Investigation of Dual-Band Metamaterial Absorber," **DOI: 10.1007/978-981-97-4760-3-9**, Photonics 2023, IISc Bangalore (Contributory Talk) (05 - 08 July 2023).
- [12] Nitish Kumar Gupta, Anjani Kumar Tiwari, Harshawardhan Wanare, and S. Anantha Ramakrishna, "Polarization speckle generation & control of angular memory effect in optically anisotropic media," **ISBN: 978-1-957171-05-0, Paper JW3B-89**, CLEO, San Jose, California, USA (15 - 20 May 2022).
- [13] N. K. Gupta, H. Wanare, A. Chopra, M. Kumar, S. S. Pal, Anjani Kumar Tiwari, and S. A. Ramakrishna, "Topological Surface State by Hierarchical Concatenation of Photonic Stopbands," **DOI: 10.1109/WRAP54064.2022.9758314**, IEEE WRAP 2022, IIT Mumbai (Contributory Talk) (04 - 06 March 2022).
- [14] Anjani Kumar Tiwari, Vivek Kumar Singh, and S. Anantha Ramakrishna, "Light-driven graphene-based multifunctional actuator," **ISBN: 978-1-943580-91-0, Paper SW2F.5**, CLEO, San Jose, California, USA (Contributory Talk) (09 - 14 May 2021).
- [15] Anjani Kumar Tiwari, Rajesh Kumar, and S. Anantha Ramakrishna, "Surface plasmon resonance mediated random lasing in thin film metamaterials," **ISSN: 978-1-943580-84-2**, OSA Laser Congress, Washington, D.C. United States (13 - 16 Oct. 2020).
- [16] Nitish Kumar Gupta, Anjani Kumar Tiwari, Harshawardhan Wanare, and S. Anantha Ramakrishna, "Unidirectional narrowband perfect absorption in quasi-random structures - interplay of gap states and Tamm plasmon modes," **DOI: 10.1109/IPC47351.2020.9252319**, IEEE Photonics Conference, Vancouver, Canada (Contributory Talk) (28 Sept. - 01 Oct. 2020).
- [17] Anjani Kumar Tiwari, Rabisankar Samanta, S. Ajmal, and Sushil Mujumdar, "Random lasing from amplifying electrostatic spray of charged microjets," **DOI: 10.1109/WRAP47485.2019.9013680**, IEEE WRAP 2019, IIT Guwahati (13 - 14 Dec. 2019).
- [18] Rajesh Kumar, Anjani Kumar Tiwari, and S. Anantha Ramakrishna, "Lasing based on periodically patterned anisotropic thin film metamaterial," **DOI: 10.1109/WRAP47485.2019.9013730**, IEEE WRAP 2019, IIT Guwahati (13 - 14 Dec. 2019).
- [19] Saleem Shaik, Anjani Kumar Tiwari and S. Anantha Ramakrishna, "Enhanced lasing in metal-insulator-metal waveguide slab based on gold coated nanoporous anodic alumina membrane," **DOI: 10.1109/WRAP47485.2019.9013949**, IEEE WRAP 2019, IIT Guwahati (13 - 14 Dec. 2019).
- [20] Anjani Kumar Tiwari, Deepak Biswal, and S. Anantha Ramakrishna, "Tunable metamaterial absorber based on liquid crystal elastomer," **Proceedings of Photonics-2018, ISBN: 978-93-88653-41-1**, International Conference on Fiber Optics and Photonics, IIT Delhi (Contributory talk) (12 - 15 Dec. 2018).
Won the **Excellence in Oral Presentation award** at Photonics 2018.
- [21] Saleem Shaik, Anjani Kumar Tiwari, and S. Anantha Ramakrishna, "Nanoporous alumina as an optofluidic alcohol sensor," **Proceedings of Photonics-2018, ISBN: 978-93-88653-41-1**, International Conference on Fiber Optics and Photonics, IIT Delhi (12 - 15 Dec. 2018).
- [22] Anjani Kumar Tiwari, Saleem Shaik, and S. Anantha Ramakrishna, "Coherent emission in optically transparent nanoporous anodic alumina films," **DOI: 10.1109/WRAP.2017.8468586**, IEEE WRAP 2017, Mahindra École Centrale, Hyderabad, India (18 - 19 Dec. 2017).
- [23] Anjani Kumar Tiwari, Lorenzo Pattelli, Renato Torre, and Diederik Wiersma, "Remote control of liquid crystal elastomer random laser," **DOI: 10.1109/WRAP.2017.8468557**, IEEE WRAP 2017, Mahindra École Centrale, Hyderabad, India (18 - 19 Dec. 2017).
- [24] Anjani Kumar Tiwari, "Resolving the otherwise unresolved Fabry-Perot modes via random intensity fluctuations," International Workshop on Complex Photonics, TIFR, Mumbai, India (Invited Talk) (22 - 24 January 2017).
- [25] Sushil Mujumdar, Anjani Kumar Tiwari, K. Shadak Alee and Ravitej Uppu, "Amplifying periodic-on-average random systems: Route to Anderson-localization random lasers," **ISBN: 978-1-55752-882-7**, International Conference on Fiber Optics and Photonics, IIT Kharagpur, Paper M3D.2 (13 - 16 Dec. 2014).

- [26] Sushil Mujumdar and Anjani Kumar Tiwari, "Collective resonances and lasing induced by photon localization in aperiodically arranged microresonators," **MRS Spring Meeting**, San Francisco, California, USA (21 - 25 April 2014).
- [27] Anjani Kumar Tiwari and Sushil Mujumdar, "Photon-localization induced random lasing from an amplifying periodic-on-average random system," **ISBN: 978-1-4799-0594-2**, CLEO/Europe, Munich, Germany (12 - 16 May 2013).
- [28] Anjani Kumar Tiwari, Girish Kulkarni and Sushil Mujumdar, "Resonant multilayers for frequency control of photon localization random lasers," **Nanometa-2013**, 4th International Topical meeting on Nanophotonics and Metamaterials.
- [29] Anjani Kumar Tiwari, Ravitej Uppu and Sushil Mujumdar, "Lasing from quasi-one-dimensional random lattice of multiple resonators," **International Conference on Fiber Optics and Photonics**, IIT Madras, Paper TPO. 14. Won the first prize for the **Best Student Paper Award** by OSA.
- [30] Rajesh V. Nair, Anjani Kumar Tiwari, Sushil Mujumdar and B. N. Jagatap, "Signature of Band-Edge-Induced Lasing Observed in Self-assembled Photonic Crystals," **International Conference on Fiber Optics and Photonics**, IIT Madras, Paper W1A.3.
- [31] Ravitej Uppu, Anjani Kumar Tiwari and Sushil Mujumdar, "Coherent random lasing in diffusive resonant media," **AIP Conf. Proc.**, **1398**, 103-105 (2011).
- [32] Anjani Kumar Tiwari, Balu Chandra, Ravitej Uppu and Sushil Mujumdar, "Coherent Emission from a Disordered Array of Amplifying Scatterers," **3rd International Conference on Current Developments in Atomic, Molecular, Optical and Nano Physics**, University of Delhi, India (14 - 16 Dec. 2011).

National conference proceedings:

- [1] Anjani Kumar Tiwari, "Optical properties of light-driven smart microstructures," **Optics and Photonics Research Conference-2026** (Invited talk), IIT Delhi (22 June 2026).
- [2] Anjani Kumar Tiwari, "Liquid Crystal Elastomer-Based Smart Microstructures," **International Conference on Photonics and Emerging Materials for Futuristic Technology (PEMFT-2025)** (Invited talk), CCS University Meerut (13 - 15 Nov. 2025).
- [3] Nikita Choudhary, Diksha Sharma, Saikat Maity, Deependra Singh Gaur, Nitish Kumar Gupta, and Anjani Kumar Tiwari, "Speckle Correlations in Scattering Birefringent films," XLVII Symposium of OSI: **International Conference on Advances in Optics and Photonics Instrumentation (OPTOIn-2024)**, CSIR-CSIO Chandigarh (23 - 25 October 2024).
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