CONFERENCE SCHEDULE

XLVI OSI SYMPOSIUM

International Conference on Optics, Photonics & Quantum Information

OPTIQ 2023

December 11-13, 2023

Organized by

International School of Photonics, Cochin University Of Science and Technology

COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

ISP

THE OPTICAL SOCIETY OF INDIA
FOUNDED 1965

Physics encompasses a multitude of fascinating branches. Optics and photonics stand out as a particularly captivating domain, unveiling the secrets of light and its behaviour. International School of Photonics, Cochin University of Science and Technology is privileged to host the XLVI OSI Annual Symposium- International Conference on Optics, Photonics & Quantum Information, OPTIQ-2023 from December 11 – 13, 2023. Prominent figures from optics community across the globe will deliver illuminating talks on diverse aspects of photonics and quantum information with their expertise in respective disciplines. Emerging researchers will present their promising research findings through insightful oral and poster presentations.

SCOPE OF OPTIQ - 2023

AMP	Artificial-Intelligence and Machine-Learning in Photonics
BPM	Biophotonics & Medical Optics
DFA	Diffractive, Free-form and Adaptive Optics
FIB	Fiber Optic Devices, Sensors and Instrumentation
GNO	Guided Wave and Nonlinear Optics
GPH	Green Photonics
IOC	Integrated Optic Circuits and Devices
ISR	Imaging and Super-resolution
LSB	Lasers Applications & Beam Optics
MWT	Microwave and THz Photonics
NPH	Nanophotonics & Plasmonics
DSD	Optical Data Storage & Display Devices
HOL	Optical Interferometry and Holography
IFM	Optical Instrumentation, Fabrication and Metrology
MAT	Optical Materials
DES	Optical System Design
SIE	Optical Sources and Illumination Engineering
OED	Optoelectronic Devices
PHC	Photonic Crystals & Metamaterials
NET	Photonic Networks, Switching Interconnects & Access
QI	Quantum Information
QOT	Quantum Optical Technologies
SIN	Singular Optics & Laser Speckles
THM	Theory, Modelling & Simulation
UFO	Ultrafast Optics
OTH	Any other topics related to Optics and Photonics

VENUE DETAILS

REGISTRATION	Seminar Complex, CUSAT
INAUGURAL SESSION	Hall A
POSTER SESSIONS	Seminar Complex, CUSAT
THESES PRESENTATION	Hall C
CONCLUDING SESSION	Hall A
HALL A	Seminar Complex Auditorium, CUSAT
HALL B	Seminar Hall, Seminar Complex, CUSAT
HALL C	International School of Photonics (ISP) Auditorium
HALL D	Executive Hall, Seminar Complex, CUSAT

Venue 1

Seminar Complex CUSAT

Venue 2

ISP CUSAT

INTERNATIONAL CONFERENCE ON OPTICS, PHOTONICS & QUANTUM INFORMATION
OPTIQ-2023
DEC 11-13, 2023

DAY 1
11 December 2023, Monday

Registration starts at 08:00 AM
@ Seminar Complex, CUSAT

Inaugural Session at 09:30 AM
@ Seminar Complex Auditorium, CUSAT

Optical Society of India (OSI) General Body Meeting at 06:45 PM @Seminar Complex Auditorium, CUSAT

HALL A - Seminar Complex Auditorium

09:30 - 10:30 AM	**Inauguration**
10:30 - 10:45 AM	***High Tea***
10:45 - 11:30 AM	**Plenary Talk 1** [Online] **Speaker: K. V. Sriram** Indian lunar missions: Lessons learnt and the triumph of CHANDRAYAAN-3 **Chair: Kehar Singh; C P Girijavallabhan**
11:30 - 12:15 PM	**Plenary Talk 2** **Speaker: Murukeshan Vadakke Matham** Micro-nanoscale patterning: Impact of interferometric and random optics, and their industrial applications **Chair: Kehar Singh; C P Girijavallabhan**
12:15 - 01:00 PM	**Techno – Commercial Session** 1. **ATOS** 2. **BIS** **Chair: K R Suresh Nair**
01:00 - 2:00 PM	***Lunch*** **Venue: Seminar Complex, CUSAT**

TECHNICAL SESSION 1 [CHAIR: T SANTHANAKRISHNAN]

OPTICAL INTERFEROMETRY AND HOLOGRAPHY (HOL)

02:00 - 02:30 PM	**A.R Ganesan** Improved interferometric configurations for tilt measurement at nanoscale
02:30 - 03:00 PM	**Harshwardhan Wanare** Interferometry: A continuing saga of surprises

03:00 - 03:30 PM	**Oral#HOL118 Biplab Dhara** Simultaneous fabrication of surface and volume grating patterns via Denisyuk holography ***Oral*#HOL119 Deepak** Enhancement of fringe density in Fresnel biprism based digital holography microscopy ***Oral*#HOL120 Haneen V N** Phase modulation in spatial coherence by modulating intensity of incoherent source
03:30 - 03:45 PM	***Tea break***

TECHNICAL SESSION 2 [CHAIR: ANTONELLO ANDREONE]

NANOPHOTONICS & PLASMONICS (NPH)

03:45 - 04:15 PM	**Shanti Bhattacharya** Combining metaoptics and optics for microendoscopy
04:15 - 04:45 PM	**Subhasish Dutta Gupta** Reflectionless propagation of beams through a stratified medium
04:45 - 05:15 PM	**Harish Krishnamoorthy** Reconfigurable indefinite nanophotonics
05:15 - 06:45 PM	**Poster Session 1 (Venue: Seminar Complex, CUSAT)**
06:45 - 07:45 PM	**Optical Society of India (OSI) General Body Meeting**
07:30 - 09:00 PM	***Dinner*** **Venue: Seminar Complex, CUSAT**

HALL B -Seminar Hall

TECHNICAL SESSION 1 [CHAIR: SAJAN D GEORGE]

PHOTONIC WORKS, SWITCHING INTERCONNECTS & ACCESS (NET) & PHOTONIC CRYSTALS & METAMATERIALS (PHC)

02:00 - 02:30 PM	**Enakshi Sharma (NET)** Compact multiplexers/ de-multiplexers for on-chip optical interconnects
02:30 - 03:00 PM	**R. Vijaya** Patterned surfaces for photonic sensing and imaging
03:00 - 03:30 PM	***Oral*#PHC140 Anjali** Design and optimization of Graphene based wiregrid terahertz polarizer ***Oral*#PHC141 Sukhvinder Kaur** Hybrid dark resonant states for thin film sensing ***Oral*#GNO145 Sajitha N M** Thermal response of nematicons in a parabolic potential
03:30 - 03:45 PM	***Tea break***

TECHNICAL SESSION 2 [CHAIR: SANTHOSH CHIDANGIL]

GREEN PHOTONICS (GPH) & ULTRAFAST OPTICS (UFO)

03:45 - 04:15 PM	**Animesh Jha (GPH)** Semiconductor quantum dot glass engineering for photothermal, photocatalytic, and photoluminescence applications using solar energy

04:15 - 04:45 PM	**Chaitanya Kumar Suddapalli** Novel mid-infrared nonlinear materials for frequency conversion
04:45 - 05:15 PM	**Smijesh N** High-intensity attosecond beamline for XUV pump–XUV probe measurements with photon energies up to 150 eV
05:15 - 06:45 PM	**Poster Session 1 (Venue: Seminar Complex, CUSAT)**
07:30 - 09:00 PM	***Dinner*** **Venue: Seminar Complex, CUSAT**

HALL C - ISP AUDITORIUM

TECHNICAL SESSION 1 [CHAIR: VIPUL RASTOGI]

QUANTUM OPTICAL TECHNOLOGIES (QOT) & QUANTUM INFORMATION (QI)

02:00 - 02:30 PM	**Ashok Kumar** Quantum technologies with bright squeezed light
02:30 - 03:00 PM	**Arijit Sharma** Towards a trapped ion-based all-optical portable atomic clock
03:00 - 03:30 PM	***Oral* #QOT142 Jerin A Thachil** Experimental generation of bright two-mode squeezed light and probing its spatial quantum correlation dynamics ***Oral*#QOT143 Sankar Davuluri** Quantum advantage in optical ranging ***Oral*#QOT146 Kuldeep Kumar Shrivastava** Hybrid Quantum engineering with photon-magnon coupling at room temperature for next generation quantum information devices
03:30 - 03:45 PM	***Tea break***

TECHNICAL SESSION 2 [CHAIR: GOUTAM K SAMANTA]

LASERS APPLICATIONS & BEAM OPTICS (LSB)

03:45 - 04:15 PM	**Venugopal Rao Soma** Semiconductor LIPSS: New insights and applications
04:15 - 04:45 PM	**Reji Philip** Evolution of a laser-produced Tungsten plasma in the early stages

04:45 - 05:15 PM	***Oral*#LSB128 Shreyan Goswami** Transverse mode filtering of a diode laser using a solid spacer three-mirror ring cavity at 1064nm
05:15 - 06:45 PM	**Poster Session 1 (Venue: Seminar Complex, CUSAT)**
07:30 - 09:00 PM	***Dinner*** **Venue: Seminar Complex, CUSAT**

HALL D - EXECUTIVE HALL

TECHNICAL SESSION 1 [CHAIR: P NANDAKUMAR]

DIFFRACTIVE, FREE-FORM AND ADAPTIVE OPTICS (DFA)

02:00 - 02:30 PM	**C. S. Narayanamurthy** Investigations on turbulence impacted light beams for free-space optical communications
02:30 - 03:00 PM	**Bosanta R. Boruah** Holographic generation of complex light beams for communication and metrological applications
03:00 - 03:30 PM	**Sanjay K. Mishra** Performances of electro-optical sensors in turbulence
03:30 - 03:45 PM	***Tea break***

TECHNICAL SESSION 2 [CHAIR: C S NARAYANAMURTHY]

FIBER OPTIC DEVICES, SENSORS AND INSTRUMENTATION (FIB)

03:45 - 04:15 PM	**Bishnu P. Pal** Optical fiber designs tailored for specialty applications
04:15 - 04:45 PM	**Arup Lal Chakraborty** Emerging trends in wavelength-modulated tunable diode laser spectroscopy
04:45 - 05:15 PM	**R. Rajesh** Fiber optic sensing for underwater applications: Present and future
05:15 - 06:45 PM	**Poster Session 1 (Venue: Seminar Complex, CUSAT)**
07:30 - 09:00 PM	***Dinner*** **Venue: Seminar Complex, CUSAT**

Poster Id	Title
AMP201	**Bhavana** Image encryption and enhancement using convolution long short term memory model based on Fractional Fourier Transform
AMP202	**Gautam Kumar Saharia** Data driven simulation of pulse propagation in the femtosecond region of the nonlinear fiber using physics-informed neural network
AMP203	**Vangety Nikhil** Analyzing MMF specklegrams for temperature recognition using a deep-learning model
BPM204	**Denny Melkay M George** In-vivo imaging of the human tympanic membrane for diagnosis of otitis media using low-cost spectral-domain optical coherence tomography
BPM205	**Meenakshi** Detection of adulteration in milk using a portable Raman spectrometer
BPM206	**Shubham Tiwari** Improved quantitative phase imaging via an optimization based transport of intensity equation
BPM435	**Pramila Thapa** Label-free multi-modal optical techniques for early-stage oral cancer screening
DES207	**Dinesh Saini** 3D field-of-view of remote focusing microscopy system
DES208	**Gokul G. Nair** Design of an off-axis three mirror multispectral Imager in VNIR and SWIR region with ultra -wide field of view using free-form surfaces
DES209	**Rahul Rohilla** Design of a reflective type free-form combiner based augmented reality Head-up Display

DES210 **Rakesh Nangia**
Optics design of long range dual FOV LWIR imaging system based on cooled detector

DES211 **Ram Prakash Nautiyal**
Optical design scheme for multiband optical system

DES212 **Vishal Bhushan**
Optics design of common aperture dual-band imaging system

DFA213 **Vikash Porwal**
Optical wireless communication in air-underwater channel

FIB214 **Adwait Dawane**
Super fluorescent source for fibre optic systems

FIB215 **Akanksha Mishra**
Optical study of dye doped polymer and its application in sensing

FIB216 **Alaguvibisha G**
Effect of Lithium Niobate on the sensing performance of the surface plasmon resonance biosensor

FIB217 **Alaguvibisha G**
Enhance performance of SPR biosensor using Al-Co bimetallic layer covered by PbTiO3-BlueP/WS2

FIB218 **Anupam Kushwaha**
Effect of porosity of porous Silicon on the performance of fiber optic SPR sensor in NIR region

FIB219 **Arvind Kumar Maurya**
Time-resolved monitoring of disturbance propagation with autocorrelation-based fiber interferometry

FIB220 **Arya Kumar Siddharth**
Ultrasensitive whispering gallery mode biosensors

FIB221 **Debparna Majumder**
Process optimization of 4x1 pump combiner

FIB223 **Isha Sharma**
All-fiber electric field sensing using Cobalt-doped Bismuth Ferrite nanoparticles in a three-mirror Fabry-Perot configuration

FIB224 **Joseph Abraham Thomas**
Experiments on phase-OTDR based underwater acoustic sensing using 6mm fiber cable loop

FIB225 **Jyoti Chauhan**
Ultra-high numerical aperture for dispersion compensation in chalcogenide based Photonic Crystal Fiber

FIB226 **Kashinath Arjun Bogle**
Infrared-visible–ultraviolet light photo-detection based on nano-crystalline metal sulfide / oxide thin films

FIB227 **Loraien Raju Kalathil**
Cost-effective optical comb frequency generation

FIB228 **Love Kumar Sharma**
Beam self-cleaning multimode fiber under different conditions

FIB229 **Malu Balachandran**
Simulation of acoustic sensing capabilities in fiber optic communication cables using COMSOL Multi-Physics

FIB230 **Neelam Verma**
Human Footstep Detection using Rayleigh backscattered light in underground optical fiber

FIB231 **Neha**
Highly sensitive refractometer utilising plasmonic mode interference

FIB232 **Pratiksha Maurya**
Efficiency of MIP receptor SPR probe with and without GO for different pH samples of Sodium Benzoate

FIB233 **Praveen T V**
PZT based frequency modulation of DFB fiber lasers for PGC based interrogation of interferometric acoustic sensors with TDM architecture

FIB234 **Praveena P V**
Acoustic low-pass filter for a compact fiber optic Mandrel Hydrophone

FIB235 **Rituparna Jana**
An FBG-based throat microphone - influence of the placement of the FBG on the intelligibility of recorded speech

FIB236 **Saikat Mondal**
Designing polycarbonate coated FBG for high performance temperature sensing

FIB237 **Sathe Mayur Anil**
Size dependent emission tuning in coupled dye doped step index polymer optical fibers

FIB238 **Satyajit Murmu**
Fano line-shaped transmission and photon coupling emission in hybrid optical nanowire structure

FIB239 **SDVS Jagannadha Raju**
Embedding of FBG sensors in electromagnetic coils for temperature studies during high current pulse discharges

FIB241 **Shivani Maurya**
Fostering green synthesis for the detection of food preservative based on Molecular Imprinting Polymer

FIB242 **Shruti De**
In-situ monitoring of nitric oxide in vehicle exhaust using a robust 1f wavelength modulation spectroscopy technique

FIB243 **Subrat Sahu**
Slotted photonic crystal optical nanofiber for cavity QED

FIB244 **Vincent Akash Gomes**
Methods for slope efficiency optimization in an All fiber Thulium doped laser

GNO245 **Abhisek Roy**
Analysis of Raman scattering on two-soliton interaction among highly nonlinear materials

GNO246 **Md Haider Ansari**
Employing Z-scan technique for the nonlinear concentration dependent study of Hemoglobin

GNO248 **Protik Roy**
Exploring ultra-broad supercontinuum generation using chalcogenide fiber

GNO251 **Shruti Jain**
Fiberized mid-infrared single-photon sources in Few-Mode Fibers

GNO252 **Soorej Thekkeyil**
Novel large mode area bend compensated "ARC" fibers for high-power lasers

GPH253 **Aayushi Soni**
Solid state lighting using multiple Phosphor layers exited by Blue laser beam: Experimental and theoretical study of thermal behaviour

GPH254 **Dheeraj Kumar**
Design and development of laser-driven multiple phosphors converted white light source in concentric ring configuration with high thermal stability

GPH255 **Nitish Shrivastava**
Efficiency enhancement analysis of nanostructured silicon-perovskite tandem thin film solar cells

HOL256 **Abhishek Tiwari**
Practical considerations in imprinting of Holographic optical elements

HOL257 **Anuj Gupta**
Acceleration of layer-based CGH generation using GPU

HOL258 **Athira T S**
Asymmetry in central wavelength shift curves due to material dispersion introduced in a spectral interferometer

HOL260 **Harikrishnan P**
Sensing wavefronts and relative phase of superimposed fields combining the intensity distributions in signal and frequency domains

HOL261 **Harikrishnan P**
Convergence criteria for Recursive formula used in phase measurement of tilted surface using tunable wavelength interferometer

HOL262 **Laxman Mandal**
Measurement of ultralow linear and angular velocity using cyclic interferometer

HOL263 **Mohit Rathor**
Holographic microscope for inspection of surface defects

HOL264 **Rahul Mandal**
Holographic concentrators recorded on photopolymer film for photovoltaic applications

HOL265 **Raj Kumar**
Fabrication and characterization of diffuser using holographic printer for achieving uniform light distribution

HOL266 **Shivani**
Understanding the concept of Holographic Optical Elements as powered and non-powered diffractive element

HOL267 **Sourav Chandra**
Measurement of coherence-polarization matrix by one-shot approach

HOL268 **Sree Renjini R S**
Holographic imaging through turbid media

HOL269 **Uma Mahesh R N**
A Deep Learning Approach for volume image segmentation in Digital Holography

HOL270 **Utadiya Subhash Khimabhai**
Characterization of occluded phase samples using lens less Fourier transform digital holographic interferometry

HOL271 **Vaishnav Raj K**
Exploring the digital micromirror device for optical wavefront shaping

IFM272 **Denny M George/Shailesh Srivastava**
Depth resolved vibration line profiles with picometers sensitivity using a fully automated selfcalibrated modified J0 technique

IFM273 **Diganta Rabha**
Background oriented schlieren imaging using smartphone

IFM274 **Bhargab Das**
Total Leukocyte counting in diluted whole blood samples using fluorescence imaging

IFM275 **Hriday Dath/ Dr. Radhika V N**
Towards realization of a cold atom gravimeter for field applications

IFM276 **Kanchan Chandra**
Spectral characterization of Linear Variable Filter (LFV) for imaging spectrometer

IFM278 **Rouchin Mahendra**
Silcon Beam-splitter for Multiwavelength bands

IFM279 **Suman Kumar Pal**
Spectroscopic detection of Potassium and Phosphorous in soil samples

IFM280 **Surya Kumar Gautam**
Low force sensor using digital speckle correlation

IFM281 **Vinod Mishra**
Design and manufacturing of blazed grating based waveguide for near eye displays

INTERNATIONAL CONFERENCE ON OPTICS, PHOTONICS & QUANTUM INFORMATION
OPTIQ-2023
DEC 11-13, 2023

DAY 2
12 December 2023, Tuesday

Cultural Program at 06:00 PM
@ Seminar Complex Auditorium, CUSAT

Conference Dinner at 07:00 PM
@ Seminar Complex, CUSAT

HALL A - Seminar Complex Auditorium

09:00 - 09:45 AM **Plenary Talk 3**[Online]
Speaker: Prem Kumar
Engineering challenges for the emerging quantum networks
Chair: Anurag Sharma; V P N Nampoori

TECHNICAL SESSION 3 [CHAIR: R RAJESH]

ANY OTHER TOPICS RELATED TO OPTICS AND PHOTONICS (OTH) & OPTICAL MATERIALS (MAT)

09:50 - 10:20 AM **Kehar Singh**
A nonlinear image authentication system based on Double Fractional Mellin Transform

10:20 - 10:50 AM **Deepa Venkitesh**
Moving towards Pb/s transmission links

10:50 - 11:20 AM **Sivarama Krishnan (MAT)**
Ultrafast emergence of an e-h quantum liquid phase in photoexcited low-dimensional MoS2

11:20 - 11:30 AM ***Tea Break***

TECHNICAL SESSION 4 [CHAIR: R VIJAYA]

OPTOELECTRONIC DEVICES (OED)

11:30 - 12:00 PM **Aloka Sinha**
Design and development of fiber optic acoustic sensor, polarizing beam splitter, and flexoelectric generator

12:00 - 12:30 PM **Narayanan Unni K. N.**
White organic Light Emitting Diodes: Role of excimer, electromer and exciplex

12:30 - 01:00 PM	**Stephane Treabol** [Online] Near-ultraviolet and visible coherent light sources
01:00 - 02:00 PM	***Lunch***
02:00 - 2:45 PM	**Plenary Talk 4**[Online] **Speaker: Dag Hanstorp** Optical juggling **Chair: Bishnu P Pal; M Kailasnath**

TECHNICAL SESSION 5 [CHAIR: D S MEHTA]

THEORY, MODELLING & SIMULATION (THM)

02:45 - 03:15 PM	**Akhilesh Kumar Mishra** SPASER: Effects of pump and gain medium
03:15 - 03:45 PM	**Anurag Sharma** Beam propagations methods: Recent contributions
03:45 - 05:15 PM	***Tea Break* + Poster Session 2**
05:15 - 06:00 PM	**Distinguished Evening Lecture** **Speaker: C. P. Girijavallabhan** **Chair: L N Hazra; Reji Philip**
06:00 - 07:15 PM	**Cultural Program**
07:00 - 09:00 PM	***Conference Dinner*** **Venue: Seminar Complex, CUSAT**

HALL B - Seminar Hall

TECHNICAL SESSION 3 [CHAIR: SAJI K J]

QUANTUM OPTICAL TECHNOLOGIES (QOT) & QUANTUM INFORMATION (QI) - II

09:50 - 10:20 AM	**Sadiq Rangwala** Cavity QED with atoms and molecules
10:20 - 10:50 AM	**Rakesh K. Singh** Holographic imaging with quantum and classical light
10:50 - 11:20 AM	**Rajesh V. Nair** Exploring the emission dynamics of cavity coupled quantum emitters
11:20 - 11:30 AM	***Tea Break***

TECHNICAL SESSION 4 [CHAIR: M R SHENOY]

OPTICAL INSTRUMENTATION, FABRICATION AND METROLOGY (IFM)

11:30 - 12:00 noon	**Kallol Bhattacharya** Decoding reflected light for optical metrology
12:00 - 12:30 PM	**Sajan D. George** Interface engineering materials for photonics applications
12:30 - 01:00 PM	**Rajan Jha** Cavity interferometry using processed optical micro-nanostructures
01:00 - 02:00 PM	***Lunch***

TECHNICAL SESSION 5 [CHAIR: RAJAN JHA]

CONTRIBUTORY TALKS

02:45 - 03:45 PM	***Oral*#BPM105 Venkata Jayasurya Yallapragada** Spherulites as nanophotonic building blocks ***Oral*#DSD110 Bhargab Das** Optical waveguide based next generation Head Up Display (HUD) for Avionics ***Oral*#GNO115 Neethu Baburaj** Study of phase sensitivities of single layer and double layer Guided Mode Resonance structures ***Oral*#GNO116 Priyanka chaudhary** Stability analysis of the PT-symmetric Lugiato-Lefever model ***Oral*#GNO117 Shakti Singh** Abruptly autofocusing ring airy Gaussian vortex beam through PT symmetric potential
03:45 - 05:15 PM	***Tea Break* + Poster Session 2**
07:00 - 09:00 PM	***Conference Dinner*** **Venue: Seminar Complex, CUSAT**

HALL C - ISP AUDITORIUM

TECHNICAL SESSION 3 [CHAIR: A R GANESAN]

SINGULAR OPTICS & LASER SPECKLES (SIN)

09:50 - 10:20 AM **Maruthi Manoj Brundavanam**
Topological transformation of fractional optical vortex beams

10:20 - 10:50 AM **Goutam K. Samanta**
Structured beams for the experimental realization of Hilbert Hotel paradox

10:50 - 11:20 AM **Nirmal K. Viswanathan**
Common optical components, uncommon optical phenomena

11:20 - 11:30 AM ***Tea Break***

TECHNICAL SESSION 4 [CHAIR: MUHAMMAD RISHAD K P]

CONTRIBUTORY TALKS

11:30 - 01:00 PM ***Oral*#HOL121 Mahendra Pratap Singh**
Testing of freeform optics using Computer Generated Hologram

***Oral*#HOL122 Shivam Kumar Chaubey**
Quantitative polarization microscopy for live cell imaging

***Oral*#HOL147 Nishant Goyal**
True definition of carrier-frequency for digital holograms of phase objects

***Oral*#IFM123 Aparajita Parashar**
Experimental study of interaction effects of process parameters during chemical mechanical polishing of fused Silica optical glass

***Oral*#IFM124 Jyoti Bikash Mohapatra**
Object detection in foggy and hazy conditions

***Oral*#IFM125 Kaitha Rajaiah**
Coherent population trapping in Rb vapour cells filled with Ar+N2 buffer gas for application in atomic clock

***Oral*#IFM126 LM Pant**
Optical metrology using holo-shear lens

***Oral*#SIN144 Vasu Dev**
Identifying topological charge of discrete optical vortices

01:00 - 02:00 PM ***Lunch***

TECHNICAL SESSION 5 |CHAIR: PRIYA ROSE T|

CONTRIBUTORY TALKS

02:45 - 03:45 PM ***Oral*#DES106 Sandeep Mishra**
Design of spine based conformal optics in MWIR band using fixed correctors

***Oral*#DES107 Shivangi Dubey**
Compact dual FOV discrete zoom catadioptric SWIR Imaging System

***Oral*#DFA108 Jaspal Singh**
Study of angular anisoplanatism using a pseudorandom phase plate

***Oral*#DFA109 Sooraj M S**
Investigation of coherent beam combining efficiency in Diffractive Element-based Filled Aperture Approach

***Oral*#DFA127 Shouvik Sadhukhan**
Phase modulation optical communication through Kolmogorov type turbulence

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03:45 - 05:15 PM ***Tea Break* + Poster Session 2**

07:00 - 09:00 PM ***Conference Dinner***
Venue: Seminar Complex, CUSAT

HALL D - EXECUTIVE HALL

TECHNICAL SESSION 3 |CHAIR: SUNIL S|

BIOPHOTONICS & MEDICAL OPTICS (BPM)

09:50 - 10:20 AM	**D. S. Mehta** Optical biopsy - multimodal and multispectral optical point-of-care devices for early cancer screening and diagnosis
10:20 - 10:50 AM	**Santhosh Chidangil** Recent developments in diagnostic technologies for oral cancer screening
10:50 - 11:20 AM	**Renu John** Machine Learning Approaches in quantitative phase microscopy
11:20 - 11:30 AM	***Tea Break***

TECHNICAL SESSION 4 |CHAIR: PRAVEEN C S|

ARTIFICIAL-INTELLIGENCE AND MACHINE-LEARNING IN PHOTONICS (AMP)

11:30 - 12:00 PM	**R. Prasanth** Emerging trends in Machine Learning for solar PV energy prediction: A comparative analysis of linear regression, SVM, and MLP
12:00 - 12:30 PM	**T. Srinivas** Inverse design techniques for Photonic Integrated Circuits
12:30 - 01:00 PM	***Oral*#AMP101 Chayanika Sharma** AI-driven OAM demultiplexing using nanostructures

***Oral*#AMP102 Sreeraj Rajan Warrier**
Inverse design of metasurfaces for narrow-band absorption using Quantum Generative Adversarial Networks

***Oral*#AMP103 Vijay Kumar**
Machine Learning Assisted structured light demultiplexing

01:00 - 02:00 PM ***Lunch***

TECHNICAL SESSION 5 [CHAIR: RIJU C ISSAC]

LASERS APPLICATIONS & BEAM OPTICS (LSB) - II &
NANOPHOTONICS & PLASMONICS (NPH) - II

02:45 - 03:15 PM **Jagannath Nayak (LSB)**
Advancements of lasers in space applications

03:15 - 03:45 PM ***Oral*#NPH132 Mubeena Rafi**
Studies on the magneto-optical Faraday rotation of surfactant assisted Fe3O4 nanoparticles

***Oral*#NPH133 Sathi Das**
Surface enhanced Raman scattering using periodic array of shape anisotropic nanostructures

***Oral*#NPH134 Syammohan. V**
Nonlinear optical study of Copper Indium Sulphide/ Zinc Sulphide core-shell quantum dots

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03:45 - 05:15 PM ***Tea Break* + Poster Session 2**

07:00 - 09:00 PM ***Conference Dinner***
Venue: Seminar Complex, CUSAT

Poster Id	Title
IOC282	**Anjali A R** Design of a waveguide based Silicon intensity modulator
ISR283	**Anuj Saxena** Waveguide-assisted TIRF mode of illumination for various cellular Imaging
ISR284	**Prateek Agrawal** High-resolution imaging with random illumination
ISR285	**Snehal Tonpe** Plenoptic image superresolution
ISR286	**Tanushree Karmakar** Sampling the light source for single pixel detection
ISR287	**V. Ashwaanth** Landscaping SAM and OAM with tightly focused vector Lissajous beam embedded with vortex phase
ISR288	**Yukti Pandey** Disordered to defined: Deconvolution techniques for object reconstruction from scattered light
LSB289	**Ankita chowdhury** Tailoring spatial coherence by layered interface
LSB290	**Bandopant** A comparative study of extraordinary and ordinary modes in self-focusing of elegant Hermite Cosh Gaussian TEM04 mode laser beam in an collisionless magnetized plasma
LSB291	**Bhavesh Pant** Sub-diffraction spot formation with circularly polarized light
LSB292	**Jaseera C P** Stability of dark solitons in optical system supported by cubic and quintic nonlinearities along with PT symmetric Scarff II complex potential

LSB293 **Khandale Kalyani Yashwant**
Influence of critical beam radius on domains of order of skew-cosh-Gaussian laser beam for self-focusing / defocusing in collisionless plasma

LSB294 **Kumari Jaishree**
Theoretical and experimental study of propagation of optical airy beam through random media

LSB295 **M.Lavanya**
Focussing properties of azimuthally polarized axisymmetric Bessel modulated vortex Gaussian beam through a dielectric interface

LSB296 **Prasad Tukaram Takale**
Self-focusing and defocusing of TEM0p mode Hermite Gaussian laser beams in collisional plasma with Impact of linear absorption

LSB297 **Nikhil Varghese**
Spatiotemporal evolution of nanosecond laser produced Zn Plasma

LSB299 **Sandeep Mishra**
Effect of spatial chirp on autofocusing beams

MAT277 **Neeraj Pandey**
Fabrication study of indigenously developed broad band chalcogenide glass

MAT300 **Amegha Sahni**
Enhanced UV emission: The substrate effect

MAT301 **Anuradha**
Photoluminescence properties of Eu:YVO4 by codoping monovalent (Li, Na, K) through economical Combustion method for various applications

MAT302 **Anushka Yadav**
Hydrothermal synthesis of colloidal VS2 quantum dots for the sensing of Ferric ion turn-Off fluorescence

MAT303 **Arpita Dwivedi**
A Eu3+doped functional nanophosphor as fluorescent biosensor for highly sensitive detection of dsDNA

MAT305 **Pinky Sagar**
In-situ one-pot novel synthesis of MoTe2@C nanodots for sensitive and selective detection of Hydrogen Peroxide molecules via turn-off fluorescence mechanism

MAT306 **Jatinderbir Singh**
Enhanced Nonlinear Optical properties of ZnS with carbon encapsulated core-shell nanostructures.

MAT307 **Jaya Choudhary**
Synthesis, structural, optical and photoluminescence properties of Samarium doped Zn3(VO4)2

MAT308 **Komal Sharma**
Cellulose acetate based photopolymer film for holographic application

MAT309 **Lakshmi R**
Carboxyalkyl chain length dependent Aggregation Enhanced Two Photon Absorption in Carbazole Barbituric acid Donor-π-Acceptor system

MAT310 **M Abith**
Influence of plasmonic effects of Group IB (Ag and Au) metals in tuning the nonlinear absorption mechanism of rGO-MoS2 hybrid

MAT312 **Nidhi Singh**
Structural, morphological and optical properties of fluorine and aluminium co-doped ZnO thin films

MAT313 **Priyanka**
Electrochemical sensor for antibiotic Chloramphenicol drug on MWCNT/GO modified GCE by voltametric techniques

MAT314 **Ramseena Thundiyil**
Exploring the impact of Zinc doping on the structural, linear, and nonlinear optical characteristics of NiO films for optoelectronic applications

MAT315 **Sharda Pandey**
Synthesis and optical properties study of undoped and carbon doped ZnO quantum dots

MAT317 **Tayaramma D P V Jalluri**
Investigations and advancements in clad layers of sintered Silicon Carbide mirrors for space optical applications

MAT318 **Vishnu Kumar Dwivedi**
Electrical and photoconductivity properties of green synthesized ZnO nanoparticles and nanocomposites

MWT319 **E.Manikandan**
Identification of microplastics contamination in soil using Terahertz imaging technique

MWT320 **Joydip Dutta**
Repetition rate stabilization of active Harmonic mode locked fiber laser based on supermode power measurement

NET321 **Chilukoti Ashok**
Quantum networks: A trapped ion cavity qed-based approach

NET322 **Suranjan Lakshan**
An all optical quantum phase shift gate using Kerr Material

NPH323 **Anjika Kumari**
Real time detection of bacteria by plasmonenhanced spectroscopy

NPH324 **Anu K. M.**
Tunable transition metal dichalcogenide based metasurfaces in anisotropic medium

NPH325 **Arun Mambra**
Dynamic emission tailoring using ultra-thin ENZ system

NPH326 **Ashish Omar**
Enhanced detection of Rhodamine 6G vibrational bands through AuNPs facilitated SERS

NPH327 **Chaudhary Eksha Rani**
Optical and optothermal forces on colloids in plasmofluidic field

NPH329 **Jayakumar Pillanagrovi**
Fabrication of hole-particle pair hybrid plasmonic substrates for SERS based bio-sensing applications

NPH330 **Lekshmi J**
Chemically synthesized Silver nanorods for remote optical excitation of Single walled carbon nanotubes

NPH331 **Mohammed Ashahar Ahamad**
Manipulating the spontaneous emission of quantum emitter embedded in SiC pillar lattice

NPH332 **Mohanasundaram C**
Creation of longitudinally polarized multiple spots by focusing phase modulated radially polarized beam with linear axicon

NPH333 **Pranabjyoti Patar**
Silicon nanoparticle-based near-infrared surface enhanced fluorescence without any "dielectric spacer"

NPH334 **Pranav George**
Whispering gallery mode microring resonator sensor for cancer and diabetes detection

NPH335 **Prateek Kumar Yadav**
Numerical study of Bismuth Ferrite and BP-based surface plasmon resonance biosensor for virus SARS-CoV-2 detection

NPH336 **Priya Mary**
Tailoring thermo-optical properties of curcumin dye with gold-silver bimetallic nanoparticles

NPH339 **Sanket Kumar**
Study of embedded metal nano-disc arrays and rings as plasmonic back reflector for high performance thin film amorphous Silicon solar cell

NPH340 **Sarita**
Convergence angle affecting tightly focused aberrated beam

NPH341 **Shakti Pada Mahato**
Surface plasmon resonance-based sensor for detecting impurity in drinking water

NPH342 **Sibanisankar Sahoo**
Dark-field microscopy studies of single silicon nanoparticles fabricated by electron beam evaporation technique

NPH343 **Siddhartha Banerjee**
Hot electron generation in nano-spiked plasmonic cavity array for sensing application

NPH344 **Sushil Kumar**
Investigation of two cascaded fibre optic surface plasmon resonance sensor

NPH345 **Yadav Rohit Umashankar**
Optimization and fabrication of plasmonic nanostructures using Electron Beam Lithography

NPH346 **Sathi Das**
Anisotropic nanostructures: a systematic exploration for SERS enhancement

NPH436 **Reshma Pindiyath**
A comparative study of electrochemical Nitrogen Doping Techniques of TiO2 Nanotube electrode for water-splitting

OED347 **Ayan Dey**
Implementation of Frequency encoded Pauli Y gate based Quantum mechanical phase shift oscillator in photonic band gap crystal

OED350 **Lakshmi Srinivasan**
Enhanced photovoltaic performance of insitu grown rGO/TiO2 hybrid-based dye sensitized solar cells

OED351 **Satyam Upadhyay**
Photoluminescence spectra and site selective excitations of Eu3+:Y3+ -SrTiO3 for visualizations of latent fingerprints and red LEDs.

OED352 **Siddhartha Panwar**
Optical And electrical characterisation of NiO/ZnO heterojunction using Pulse Laser Deposition Technique

OED353 **Suranjan Lakshan**
Optical phase shift keying scheme using Kerr switch

OED354 **Vaibhav Sharma**
Polymer dispersed liquid crystal film for tunable surface plasmon resonance

OTH355 **Anand Shanker Upadhyaya**
Design and development of dielectric mirror for MWIR region

OTH356 **Anil Kumar**
High efficiency anti-reflection coating for dispersive silicon solar cells

OTH357 **Chinnu Susan John**
Chromium doped Al2O3 nanophosphors for Potential Deep Red LED Applications

OTH358 **Dikshitha CM**
A proposal to differentiate drug-induced toxic changes in fluorescence cellular nuclei images using Deep Learning Approach

OTH359 **R. Girija**
Asymmetric color image cryptosystem based on Chaotic Henon Iris Masks (CHIM) with various domains

OTH360 **Harshad C**
Effect of annealing conditions on structural and luminescence properties of calcium magnesium silicate phosphors

OTH361 **Mariya Sunny**
Synthesis and photoluminescence analysis Of Terbium doped Barium Tungstate nanophosphor

OTH362 **Prajal Chettri**
Femtosecond laser ablated binary phase grating in fused silica for beam-splitting applications

OTH363 **Rakshith Kamath**
Exploring suitable solvents for drop-on-demand or continuous inkjet printing using laser-induced shockwaves

OTH364 **Rashmi Negi**
Design and Development of Ta2O5/MgF2 multilayer anti-reflection coating for visible optics

OTH365 **Siddivinayaka T S**
PT symmetric optical structure with linearly graded refractive index

OTH366 **Sreelekshmi P S**
Patch based analysis of cell painted fluorescence microscopy images using gradient and intensity features

DAY 3
13 December 2023, Wednesday

Valedictory session at 03:15 PM

@ Seminar Complex Auditorium, CUSAT

HALL A - Seminar Complex Auditorium

09:00 - 09:45 AM **Plenary Talk 5**
Speaker: Andreone Antonello
Probing solids, liquids, and meta-devices by THz Time Domain Ellipsometry
Chair: Enakshi Sharma; V M Nandakumaran

TECHNICAL SESSION 6 [CHAIR: ARIJIT SHARMA]

INTEGRATED OPTIC CIRCUITS AND DEVICES (IOC) & OPTOELECTRONIC DEVICES (OED) - II

09:50 - 10:20 AM **L. N. Hazra**
A prophylactic strategy for global synthesis of optical and photonic systems

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10:20 - 10:50 AM ***Oral*#OED135 Alphi Maria Thomas**
High sensitive, self powered and flexible UV photodetector realized with eco-friendly Zn-Al:LDH Ns/NiO/Spiro-MeOTAD heterojunction

***Oral*#OED136 Krishnanunni R A**
Single wavelength Optical beam steering using carrier injected Tunable Grating Antennas

***Oral*#OED137 Nithin V**
Integrated LED-pumped semiconductor optical amplifier

***Oral*#OED148 Geeta**
Fabrication and characterisations of 2D-MoS2 thin films for optoelectronic and photonic device applications

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10:50 - 12:15 PM ***Tea Break* + Poster Session 3**

TECHNICAL SESSION 7 |CHAIR: JOBY JOSEPH|

NANOPHOTONICS & PLASMONICS (NPH) - III &
ULTRAFAST OPTICS (UFO) - II [ONLINE]

12:15 - 12:45 PM	**Gautam Das (NPH)** 3D Plasmonic structure on the surface of a tapered optical fiber for the detection of trace chemicals
12:45 - 01:15 PM	**Joakim Bood (UFO)** New strategies for coherent Raman spectroscopy in reactive flows
01:15 - 02:15 PM	***Lunch***

TECHNICAL SESSION 8 |CHAIR: RANJAN SINGH|

ULTRAFAST OPTICS (UFO)

02:15 - 02:45 PM	**Riju C. Issac** Sub-picosecond density evolution in Femtosecond laser produced plasma channels in air
03:15 - 04:15 PM	**Valedictory Session**
04:15 - 04:30 PM	***Tea***

HALL B - Seminar Hall

TECHNICAL SESSION 6 [CHAIR: RAJIB CHAKRABORTY]

MICROWAVE AND THZ PHOTONICS (MWT)

09:50 - 10:20 AM **Ranjan Singh**
On-chip THz topological photonics for 6G to XG wireless

10:20 - 10:50 AM **Rajeev N. Kini**
THz acoustic phonon amplification in quantum wells

10:50 - 12:15 PM ***Tea Break* + Poster Session 3**

TECHNICAL SESSION 7 [CHAIR: SHEENU THOMAS]

OPTICAL MATERIALS (MAT)

12:15 - 12:45 PM **P. R. Biju**
Phosphor materials for lighting and security application

12:45 - 01:15 PM ***Oral*#UFO433 Anusha P T**
Utilizing transient absorption spectroscopy in exploring the ultrafast dynamics in perovskite solar cells

***Oral*#FIB222 Rajneesh Kumar Verma**
Ultra-selective enzyme and ultra-sensitive TCPP-based fiber optic probes for tyramine detection in wine

01:15 - 02:15 PM ***Lunch***

TECHNICAL SESSION 8 [CHAIR: ALOKA SINHA]

IMAGING AND SUPER-RESOLUTION (ISR)

02:15 - 02:45 PM	**P. Nandakumar** An in-house constructed confocal fluorescence microscope and its applications
02:45 - 03:15PM	**Joby Joseph** Optical microscopy beyond diffraction limit through structured illumination
04:15 - 04:30 PM	***Tea***

HALL C - ISP AUDITORIUM

TECHNICAL SESSION 6 [CHAIR: RAKESH KUMAR SINGH]

THESES PRESENTATION

09:50 - 10:50 AM

#TBPM01 Himanshu Bansal
Computational Modeling of Optogenetic Control of Neuronal Signaling

#TISR02 Kaushal Vairagi
Common-path Optical Coherence Tomography with Quasi-Bessel beam from Negative Axicon Optical Fiber Tip Probe

#TLSB03 Vasu Dev
Generation and characterization of spatially controlled structured light with exotic propagation properties

#TLSB04 Pritam P Shetty
Generation, modulation and detection of phase structured laser beams for sensing application

#TMAT05 Arpita Dwivedi
A study of optical properties of Europium (Eu) based rare earth nanomaterial and their applications

10:50 - 12:15 PM ***Tea Break*** **+ Poster Session 3**

TECHNICAL SESSION 7 [CHAIR: R PRASANTH]

12:15 - 01:15 PM

#TNPH06 Lakshmi B
Optical, magnetic and magneto-optical characteristics of CoFe2O4 and Ni based magnetoplasmonic nanostructures

#TOTH07 Manju
An uncertainty relation based study of quantum correlations

#TNPH08 Pramila Thapa
Multimodal optical imaging and spectroscopic techniques for cancer screening and diagnosis

#TBPM09 Sathi Das
Development of scalable and cost-effective SERS substrate for bio-photonic applications

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01:15 - 02:15 PM ***Lunch***

TECHNICAL SESSION 8 |CHAIR: NIRMAL K VISWANATHAN|

OPTICAL INTERFEROMETRY AND HOLOGRAPHY (HOL) - II

02:15 - 02:45 PM **Raj Kumar**
Holographic optics for high functional AR/VR displays

02:45 - 03:15 PM **Dinesh N. Naik**
Nonlinearity in phase accumulation in optical interference

04:15 - 04:30 PM ***Tea***

HALL D - EXECUTIVE HALL

TECHNICAL SESSION 6 |CHAIR: KALLOL BHATTACHARYA|

FIBER OPTIC DEVICES, SENSORS AND INSTRUMENTATION (FIB) - II

09:50 - 10:20 AM **Vipul Rastogi**
Few-mode and OAM mode optical fibers for mode division multiplexing communication systems

10:20 - 10:50 AM ***Oral*#FIB111 Jyoti**
Ultra-sensitive detection of triethylamine (TEA) using LMR/LSPR based fiber optic probe

***Oral*#FIB112 Loraien Raju Kalathil**
Edge filters for optical sensing applications

***Oral*#FIB113 R. Rajesh**
Detection of phosphate using different geometries of optical fiber sensor

10:50 - 12:15 PM ***Tea Break* + Poster Session 3**

TECHNICAL SESSION 7 |CHAIR: MOHAMED AMEEN P|

CONTRIBUTORY TALKS

12:15 - 01:15 PM ***Oral*#FIB114 Gayathri Bharathan**
Optimized laser inscribed fibre Bragg gratings into fluoride fibres

***Oral*#FIB149 Shankar Pidishety**
Switchable vector-mode generation using a mode selective coupler designed with a standard step-index fiber

***Oral*#NPH130 Faizan Hilal Lone**
Coupling NV centers to surface states in nanophotonic structures

***Oral*#NPH131 Liya Tony**
Novel method for the fabrication of titanium nitride thin films from sputtered metal films

***Oral*#OTH138 Anita Mary Peter**
Concentration dependent thermo-optic properties of CePO4 nanorods

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01:15 - 02:15 PM ***Lunch***

TECHNICAL SESSION 8 [CHAIR: P R BIJU]

ANY OTHER TOPICS RELATED TO OPTICS AND PHOTONICS (OTH) - II

02:15 - 02:45 PM **Suhas M. Jejurikar**
Understanding the optical materials for optoelectronic applications

02:45 - 03:15PM **Sunil S**
LIGO-India: A route to innovation

04:15 - 04:30 PM ***Tea***

Poster Id	Title
PHC367	**Anil Kumar** An ultrathin metamaterial absorber with ring-disc resonators using SiC material
PHC368	**Geetanjali Jena** Robust microwave transport in topological ring resonator
PHC369	**Mitali Sahu** Frequency selective surface for third harmonic generation using Split Ring Resonator at THz frequencies
PHC370	**Nancy Ghangas** Asymmetric reflections in defective photonic crystals with atomic doping
PHC371	**Pratiksha Sakhare** Electromagnetic response of liquid crystal based tunable all-dielectric quasiperiodic metasurfaces
PHC372	**Priyanka Kumari Gupta** All-optical 2 x 2 switch based on nonlinear photonic crystal ring resonator
PHC373	**Silpa S** Realizing an optical micro-cavity in a CuCo2O4-W-CuCo2O4 thin film stack for spectrally selective solar absorbers
PHC374	**Vaishnavi Sajeev** Terahertz transmission studies on plasmonic hole arrays of different geometries
PHC375	**Vishakha Sharma** Ultra-compact dielectric metalens in mid-infrared region
QI376	**Asmita Kumari** Activation of hidden nonlocality using local filtering operations based on CGLMP inequality
QI377	**Bibia Alif** Preliminary investigations of quantum maps on photonic qubits

QI378 **Chayan Purkait**
Anisotropy-assisted thermodynamic advantage of a local-spin thermal machine

QI379 **Jatin Ghildiyal**
Quantum synchronization between two spins group coupled via a spin-chain

QI380 **Sayuj P**
Experimental realization of two qubit teleportation and four bit dense coding

QOT381 **Anjan Samanta**
Controllable phonon blockade in a mechanical resonator coupled with superconducting qubits driven by squeezed light

QOT382 **Chirangbhai Rajubhai Patel**
Free space deterministic secure quantum communication with two-mode squeezed states

QOT383 **Madhav Kumar Singh**
Optomechanical entanglement via pump modulation in hybrid system embedded with doble quantum dots

QOT384 **Greeshma Gopinath**
Continuous variable entanglement using optomechanics

QOT385 **Kousik Mukherjee**
Possibility of all-optical-switching in PT-symmetric coupled micro-cavities

QOT386 **Lavakumar Addepalli**
Multi-photon lasing in the incoherently pumped two quantum dots-photonic crystal cavity system

QOT387 **Manju**
An uncertainty relation based study of quantum correlations in optomechanical systems

QOT388 **Manojkumar V**
High fidelity room temperature single photon emission from colloidal quantum dots

QOT389 **Mir Nadim Sarfaraj**
Design of an oscillator circuit using tristate quantum optical phase shift gate

QOT391 **Pradyumna Pathak**
Phonon-assisted interaction between two modes of a field mediated by two quantum dots

QOT392 **Priyanka**
Simultaneously effect of hydrostatic pressure and impurity on entropy and heat capacity of double quantum wire

QOT393 **Rishabh Pal**
Progress towards an all-optical trapped ion-based portable atomic clock

QOT394 **Siddhant Vernekar**
Spectral purity optimization of SPDC generated photon pairs for quantum photonic applications

QOT395 **Simanshu Kumar**
The Wigner approach to high-NOON states by blending quantum and classical light

QOT396 **Sreeshna Subhash**
Continuous variable quantum node using optics

QOT397 **Surabhi Yadav**
Optical bistability/multistability in a hybrid optomechanical system assisted by Kerrnonlinearity and amplitude modulated drive field

QOT398 **Swetha K**
Creation of room temperature single photon emitters in hexagonal Boron Nitride

QOT434 **Priyanka M**
Quantum-enhanced nonlinear Sagnac interferometer

SIE399 **Anita Kumari**
Abruptly autofocusing circular iry derivative beams in free space and disorder media

SIE400 **Kiranjot Kaur**
Innovative daylighting solutions: assessing the Fresnel lens for optimal interior lighting sustainability

SIE401 **Amit Kumar**
An L2-norm based quadratic cost function for advancing the wavefront shaping through scattering media

SIE402 **Santosh C R**
Wavelength switchable & tunable noise like pulse laser using intracavity loss tuning

SIE403 **Santosh C R**
Bidirectional modelocked tunable dual noise like pulse emission from a single laser cavity

SIN404 **A Harish Kumar**
Role of quasi-monochromaticity in spin-orbit interaction of light

SIN405 **Akanksha Gautam**
Vortices in correlation function

SIN406 **Amit Yadav**
Detection of vortex beam with high topological charge

SIN407 **Anuj Maurya**
Polarization based spatial-filtering using spin-orbit beams

SIN408 **Basant Kumar**
Diversity in speckle of polarization structured light on propagation through turbulence

SIN409 **Bibek Kumar Patra**
Study of classical non-separability of a vector vortex beam reflected from a prism

SIN410 **Cyriac Raju**
Transverse spin variations due to high-NA focusing

SIN411 **Harsh Vardhan**
Optical image encryption using Hermite-Gaussian Beam Speckles

SIN412 **Jyoti Bikash Mohapatra**
Fractional topological charge measurement of optical vortex beam using joint transform correlator

SIN413 **Keerthana S H**
Application of Fujii algorithm in laser speckle imaging for the determination of intermittent dynamics of drying dispersions of white paint

SIN414 **Maitreyi Jayaseelan**
Interpretations of Stokes polarimetry in the spin-1 context: a tensor description of light

SIN415 **Md. Haider Ansari**
Coherence Vortices: A complete mathematical and experimental analysis

SIN416 **P M Pooja**
Analysing weighted composite vortex beams

SIN417 **Upasana Baishya**
Complete quantification of weak anisotropy of crystals

SIN418 **Vasu Dev**
Generation of optical vortex beams with large depth-of-focus

THM316 **Shouvik Sadhukhan**
Stress measurement via geometric phase shifting in photoelasticity, non-distinguished isochromatic vs. isopachic fringes

THM419 **Abhijit Hazra**
Identifying optimal practices in VQE through quantum computation of ground state energies of H2 and LiH

THM420 **Ajay Kumar**
Modelling and analysis of FM-FBG sensors

THM421 **Athira T. Das**
Average transmittance of Sine hyperbolic Gaussian vortex beam (ShGvB) in vertical anisotropic oceanic turbulence

THM423 **Bhaskar De**
Random discrete inhomogeneity in two-dimensional coherent spectroscopy simulations

THM424 **G Nageswara Rao**
Estimation of optical turbulence for high energy laser propagation

THM425 **Maharaja Balaji**
High performance Terahertz hollow core antiresonant fiber with sector cladding tubes

THM427 **Pratiksha Choudhary**
Non-paraxial beam propagation method for Silicon photonics

THM428 **Sagar Chowdhury**
Resonant structure for improved directionality and extraction of single photons

THM429 **Sujal Gupta**
Numerical demonstration of fading memory in sparse event excited in Frantic photonic structure

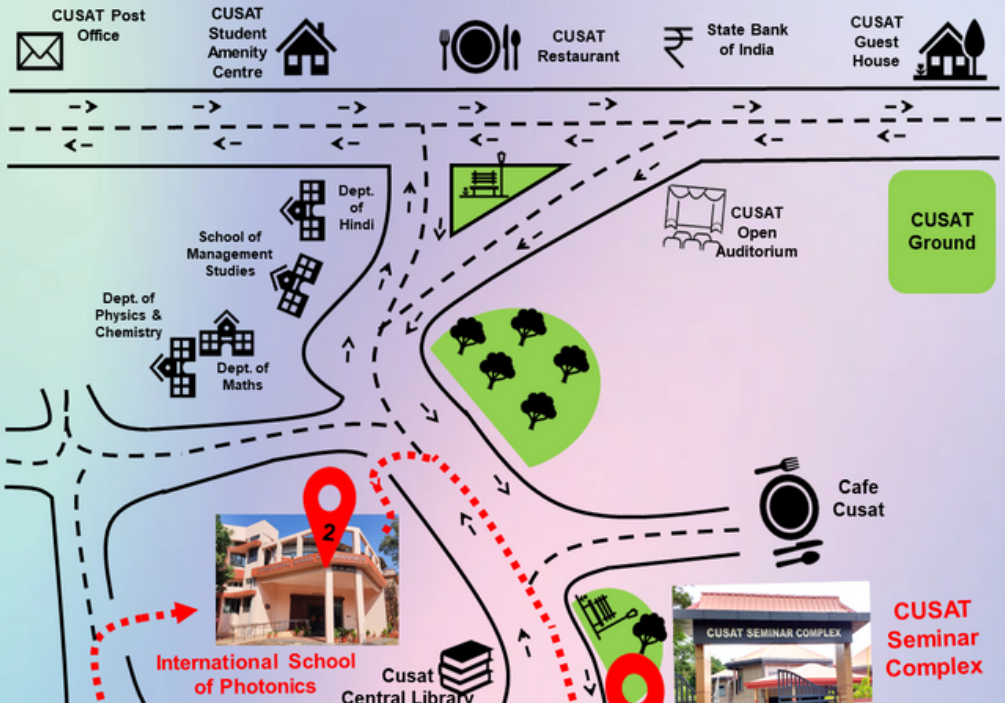
THM430 **Varun S V**
Frequency splitting in dissimilar coupled disks

UFO431 **Akshay Raj R**
Realization and parametric analysis of All-PM All-Normal Yb-doped ultrafast fiber laser

UFO432 **Amit Kumar Pradhan**
Wavelength dependent optical limiting and saturable absorption in Silver nanocrystals

NOTES

NOTES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Dept. of Maths
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CUSAT Ground
Cafe Cusat
2
International School of Photonics
Cusat Central Library
CUSAT SEMINAR COMPLEX
CUSAT Seminar Complex

N

Towards venue
P306, 307 Metro Pillar

Map not to scale

Hostel

Hostel

CUSAT
Administrative
office

VidyaBharathi
Group of Institutions

CUSAT
Junction

Welcare
Medicals

Federal
Bank ATM

University Road

Little Flower
Engineering
Institute

Cusat Bus Stop

Cochin University
Metro Station

NH 544

P306

P307

Towards Ernakulam

Towards Thrissur

NH 544

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