

International Symposium on Light & Life

(<http://ww2.comsats.edu.pk/lightandlife2015/>)

Venue 1: Seminar Hall, Academic Block I, CIIT, Islamabad

Venue 2: Room 207, Academic Block I, CIIT, Islamabad

TECHNICAL PROGRAM

DAY 1, Wednesday – 14 Oct. 2015

08:30 – 09:30	Registration	
INAUGURAL SESSION		
Venue: Seminar Hall, Academic Block I, CIIT, Islamabad		
09:30 – 10:30	Recitation of Verses from The Holy Quran	
	Welcome Address	Dr. S. M. Junaid Zaidi Rector, CIIT
	Symposium Overview	Prof. Dr. Mohammad Aslam Khan Chairman, Organizing Committee
	International Year of Light and Light-Based Technologies- A Brief Overview	Prof. Dr. M. Aslam Baig Focal Person in Pakistan for International Year of Light and Light-Based Technologies
	Inaugural Address	Dr. I. E. Qureshi Executive Director, COMSATS
10:30 – 11:00	Address by the Chief Guest	H. E., Rana Tanveer Hussain, Federal Minister for Science & Technology
	Tea & Refreshments	

Wednesday Technical Session I: Optoelectronics & Photonics I

Chairperson: Prof. Dr. Fida Younis Khattak, Kohat University of Science & Technology

Venue: Seminar Hall, Academic Block I, CIIT, Islamabad

11:00 – 11:40	Prof. Dr. Nabeel A. Riza UCC, Ireland	Inventing with Light – A Personal Journey
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11:40 – 12:20	Prof. Dr. M. Yasin Akhtar Raja, UNCC, USA	Integrated Photonics: An Emergent Technology Lighting up the Future
12:20 – 1:00	Dr. Khizar Bhutta Whirlpool Corporation (USA)	II-Nitrides WBG Semiconductor Photonic Crystals for high extraction efficiency of deep-UV Lighting Technology
1:00 – 2:00	Lunch & Prayer Break	
Wednesday Technical Session II(a): Quantum Informatics		
Chairperson: Dr. Manzoor Ikram, NILOP, Islamabad		
Venue: Seminar Hall, Academic Block I, CIIT, Islamabad		
2:00 – 2:25	Prof. Guoqin Ge Huazhong University, China	Non Linear Optics with Superconducting Quantum Circuits
2:25 – 2:50	Dr. Sajid Qamar CIIT, Islamabad	Coherent Control of the Goos-Hänchen Shift
2:50 – 3:05	Dr. Javaid Anwar CIIT, Islamabad	Phase Dependent Electromagnetically Induced Transparency (EIT) In a Three Level Atomic System Using Squeezed Vacuum Reservoir
3:05 – 3:20	Dr. Fazal Ghafoor CIIT, Islamabad	Darkened atom and temporal dynamics of atom population at the excited energy level
3:20 – 3:45	Dr. Mushtaq Ahmed NILOP, Islamabad	<i>Lasers in Agriculture and Biophotonics: Recent Research at NILOP</i>
Wednesday Technical Session II(b): Light Sources Detection and Harvesting		
Chairperson: Prof. Dr. Zafar Iqbal, CIIT, Islamabad		
Venue: Room 207, Academic Block I, CIIT, Islamabad		
2:50 – 3:05	Dr. Arshad Mahmood NILOP, Islamabad	The race for GaN Blue Laser Diode: A tribute to Akasali, Hiroshi & Nakamura
3:05 – 3:20	Dr. Amir Khurram Rashid	On the Prospects of Electrically Large Optical Antennas For Energy Harvesting

3:20 – 3:35	Ms. A. Kalair CIIT, Islamabad	A Generic Model of PV Plant Lightning Protection
3:35 – 4:00	Tea Break	
Wednesday Technical Session III (a) : Optoelectronics & Photonics II		
Chairperson: Prof. Dr. M. Yasin A. Raja, UNCC, USA		
Venue: Seminar Hall, Academic Block I, CIIT, Islamabad		
4:00 – 4:25	Dr. Nabeel A. Riza UCC, Ireland	Smart Photonic Sensors – Performing for the Environment
4:25 – 5:05	Dr. Hani Elsayed-Ali ODU, USA	Ultrafast time-resolved electron diffraction studies of laser heated thin films and surfaces.
5:05 – 5:20	Dr. Samia Tabassum IFRD, Bangladesh	Sol-gel and RF Sputtered AZO Thin Films: Analysis of Oxidation Kinetics in Harsh Environment
Wednesday Technical Session III (b): Light Sources Detection and Harvesting II		
Chairperson: Dr. Khizar Bhutta, Whirlpool Corporation, USA		
Venue: Room 207, Academic Block I, CIIT, Islamabad		
5:05 - 5:20	Dr. Atta Ullah NILOP, Islamabad	Epitaxial Growth of GaN on c-Plane Sapphire by MBE Technique (Process Optimization)
5:20 – 5:35	Dr. Zahid Ali NILOP, Islamabad	Highly Efficient Photoelectrochemical Response by Sea-urchin Shaped ZnO-TiO Nano Micro Hybrid Heterostructures Co-Synthesized with CdS/CdSe

DAY 2 THURSDAY – 15 Oct. 2015

Thursday Technical Session IV (a): Light Sources Detection and Harvesting III		
Chairperson: Dr. Badar Suleman, PAEC, Islamabad		
Venue: Seminar Hall, Academic Block I, CIIT, Islamabad		

9:00 – 9:25	Dr. Khizar Bhutta Whirlpool Corporation, USA	Solid State Lighting – Next Generation of Illumination Technologies
9:25 – 10:05	Dr. Zahid Hussain LBNL, USA	Accelerator based Light Sources of Today and Tomorrow
10:05 – 10:30	Dr. Iqbal Chaudhry Qorvo Inc., USA	Multi-junction Solar Cells for Concentrated Photovoltaic
10:30 – 10:45	Dr. Osman M. Omar IRCC, Sudan	Design & Analysis of PV Energy to Grid Utility by Using String inverter
Thursday Technical Session IV (b): Quantum Informatics-II Chairperson: Prof. Dr. Sajid Qamar, CIIT, Islamabad Venue: Room 207, Academic Block I, CIIT, Islamabad		
10:30 – 10:45	Dr. Salman Khan CIIT, Islamabad	Tripartite entanglement in various cavities under dipole-dipole interaction
10:45 – 11:30	Tea Break	
Thursday Session V (a): Imaging Science Chairperson: Prof. Dr. Nabeel A. Riza, UCC, Ireland Venue: Seminar Hall, Academic Block I, CIIT, Islamabad		
11:30 – 12:00	Dr. Hakan Altan METU, Turkey	Spatial Modulation of THz beams for Imaging Applications
12:00 – 12:30	Dr. Zahid Yaqoob MIT, USA	Biophotonic Instrumentation – Design to Applications
12:30 – 12:45	Dr. Anwar Hussain CIIT, Islamabad	Resolution Enhancement Using Simultaneous Coupled Illumination
Thursday Technical Session V (b): Quantum Informatics Chairperson: Dr. Javed Anwar, CIIT, Islamabad Venue: Room 207, Academic Block I, CIIT, Islamabad		
12:30 – 12:45	Dr. Zia ud Din CIIT, Islamabad	Parity-Time Symmetry in Rydberg Atoms

12:45– 13:00	Dr. Rameez ul Islam NILOP, Islamabad	Wheeler's Delayed Choice Experiment: a proposal for Bragg regime cavity QED implementation
1:00 – 2:00	Lunch & Prayer Break Thursday Technical Session VI: Light-Matter Interaction Chairperson: Dr. Hakan Altan, METU, Turkey Venue: Seminar Hall, Academic Block I, CIIT, Islamabad	
2:00 – 2:40	Dr. Wolfgang Sandner ELI-DC, Germany	Extreme Light Infrastructure- A Pan-European Laser Facility
2:40 – 2:55	Dr. Abdul Waheed NILOP, Islamabad	Suppression of Multiphoton Intra-shell Resonances in Li Rydberg atoms
2:55 – 3:35	Dr. G. J. Tallents University of York, UK	Applications of Extreme Ultra-Violet Lasers
3:35 – 3:50	Dr. Saira Arif CIIT, Islamabad	Laser Cleaning of Historical and Modelled Papers by 213 nm and 532 nm Pulsed Laser Radiation
3:50 – 4:05	Dr. Muhammad Rafi NILOP, Islamabad	Electrospinning: Fabrication of Nanofibers for Advanced Engineering Applications
4:00 – 6:00 pm	Thursday Technical Session VII (a): Poster Session (Basement of Central Library, CIIT) Chairpersons: Prof. Dr. M Yasin Akhtar Raja & Dr. M. Iqbal Chaudhary (Tea And Refreshments will be available in the Central Library) (b) Visit To The Research Labs	
CONFERENCE DINNER Islamabad Club, Islamabad 07:30 pm – 09:30 pm		

DAY 3, Friday – 16 October 2015

Friday Technical Session VIII (a): Nanophotonics

Chairperson: Dr. Khizar Bhutta, Whirlpool Corporation., USA.

Venue: Seminar Hall, Academic Block I, CIIT, Islamabad

9:00 – 9:30	Dr. Yasin M. Akhtar Raja UNCC, USA	Pioneers in Study of Light – The Forgotten Giants
9:30 – 9:55	Dr. Sabieh Anwar LUMS, Lahore	Magneto-Optics meets Nanoscience
9:55 – 10:35	Dr. Maria Allegrini University of Pisa, Italy	Optical Nanoscopy
10:35 – 10:45	Dr. Marjan Rajabi IROST, Iran	Luminescence Spectroscopy of La-doped TiO ₂ One-Dimensional Nanostructures
10:45 – 11:10	Dr. M. Shahbaz Anwar Kyoto University, Japan	Long range Proximity effect between a spin-triplet Superconductor Sr ₂ RuO ₄

Friday Technical Session VIII(b): Optoelectronics & Photonics III

Chairperson: Dr. Sabieh Anwar, LUMS, Lahore

Venue: Room 207, Academic Block I, CIIT, Islamabad

10:40 – 10:55	Dr. M. Faryad LUMS, Lahore	Zero-Index-Metamaterial Using Dielectric Core Shell Photonic Crystals.
10:55 – 11:10	Dr. Tanveer Ashraf NILOP, Islamabad	Heusler Alloys for Spintronic Devices

11:10 – 11:30

Tea Break

Friday Technical Session IX (a): Light-based Technologies-I

Chairperson: Prof. Dr. Zafar Iqbal, CIIT, Islamabad

Venue: Seminar Hall, Academic Block I, CIIT, Islamabad

11:40 – 11:55	Dr. Umair Hassan CIIT, Islamabad	Trapping the Charge Carriers - an unusual way to make highly efficient Polymer Light Emitting Diodes
11:55 – 12:20	Dr. Soon Xi Ng University of Southampton, UK	Quantum Error Correction Codes
12:20 – 12:45	Prof. Dr. S. M. H. Zaidi NUST, Islamabad	Power Saving Using Class of Service Differentiation Mechanism in Extended Reach Fi-Wi Networks
12:45 – 1:00	Dr. Asghari Gul CIIT, Islamabad	Photo-Polymerization of Acrylate Monomers using a Q-Switched Nd: YAG Laser
Friday Technical Session IX (b): Light Sources Detection and Harvesting Chairperson: Dr. Khizar Bhutta, Whirlpool Corporation, USA Venue: Room 207, Academic Block I, CIIT, Islamabad, Academic Block I, CIIT, Islamabad		
12:20 – 12:35	Dr. Zubair Khan Federal Urdu University Islamabad	Effect of Light on the Electron Beam Detection by Faraday Cup
12:35 – 12:50	Mr. Fatih Degirmenci TUBITAK-MAM, Turkey	Fecile Perovskite Film Production Method via Precursor Vapor Deposition
Friday Technical Session X (a): Photobiology & Photochemistry-I Chairperson: Prof. Dr. Zahid Saleem, CIIT, Islamabad Venue: Seminar Hall, Academic Block I, CIIT, Islamabad		
2:30 – 2:55	Dr. Zahid Yaqoob MIT, USA	Overcoming Turbidity for Deep-Tissue Imaging
2:55 - 3:35	Dr. Andrea Goldoni Elettra Synchrotron, Italy PIEAS, Islamabad	Application of Synchrotron Radiation in the study of organic molecules for catalysis, energy and magnetic materials
3:35 – 4:00	Dr. Masroor Ikram	Polarimetry and its Applications in Biophotonics

Friday Technical Session X (b): Light Based Technologies-II

Chairperson: Dr. Ghazanfar Hussain, NILOP, Islamabad

Venue: Room 207, Academic Block I, CIIT, Islamabad

03:35 – 03:50	Dr. Nighat Yasmin NILOP, Islamabad	Design and Development of Mie Lidar System for Atmospheric Monitoring
03:50 – 04:05	Dr. Irfan Memon CIIT, Islamabad	Tunable Millimeter Wave Synthesizer Using Optical Technology
CONCLUDING SESSION		
Venue: Seminar Hall, Academic Block I, CIIT, Islamabad		
4:05	Recitation of Verses from the Holy Quran	
4:10	Symposium Report	Prof. Dr. M. Aslam Khan, Chairman Organizing Committee
4:20	Future of Photonics in Pakistan	Prof. Dr. Arshad S. Bhatti Dean Faculty of Sciences, CIIT, Islamabad
4:30	Address by the Chief Guest	Dr. Shaukat Hameed Khan Coordinator General, COMSTECH
4:45	Vote of Thanks	Prof. Dr. Raheel Qamar CIIT, Islamabad
4:55	Distribution of Prizes and Certificates	
5:30	Group Photo, Tea & Refreshments	