

**International Conference on Optics & Photonics
(ICOP – 2009)**

October 30 – November 1, 2009

Organised by :

Central Scientific Instruments Organisation (CSIO)

(Council of Scientific & Industrial Research)

Chandigarh

**POSTER
SESSIONS
October 30 –
November 1, 2009**

FRIDAY, OCTOBER 30, 2009 (16.15-17.30 Hrs)

POSTER SESSION – I

P-1	Fiber optic interrogator for in-situ nitrate detection in groundwater based on colorimetry technique Navneet Singh Aulakh and R. S. Kler Central Scientific Instruments Organisation, Sector 30, Chandigarh-160030
P-2	Estimation of uncertainty of measurement of optical pulse oximetry Sashi Moitra*, K P Chaudhary** and H K Pir* *Central Scientific Instrument Organisation, Delhi **National Physical laboratory, Delhi
P-3	One dimensional temperature reconstruction for Raman distributed temperature sensor C. Pandian, M.Kasinathan, S.Sosamma, C. Babu Rao, N.Murali, T.Jayakumar and Baldev Raj Indira Gandhi Centre For Atomic Research, Kalpakkam -603102
P-4	Effect of refractive index of the ambient medium on long period grating M. Kasinathan, C.Pandian, S. Sosamma, C.Babu Rao, N.Murali, T.Jayakumar and Baldev Raj Indira Gandhi Centre for Atomic Research, Kalpakkam -603102
P-5	Development of optical fiber chemical sensor for detection of ammonia H. J. Kharat, K. Datta, P. Ghosh, and Mahendra D. Shirsat Optoelectronics and Sensor Research Laboratory, Department of Physics, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431 004, (MS), India.
P-6	Static and dynamic strain monitoring of concrete structures using packaged fiber bragg grating sensor P. Biswas¹, S.Bandyopadhyay¹, K.Kesavan², S.Parivallal², B. Arun Sundaram², K. Ravisankar², K. Dasgupta¹ ¹ Fiber Optics Laboratory, Central Glass and Ceramic Research Institute, Kolkata, India ² Experimental Mechanics Laboratory, Structural Engineering Research Centre, Chennai, India
P-7	Intensity based fiber optic deflection sensor M. Sumathi and R. Pratheep Sona College of Technology, Salem
P-8	Fiber optic distributed temperature radar for monitoring coolant and gas pipelines SDVSJ Raju*, M.K.Saxena, Rajesh Vyas[#], S.Kher, S.M.Oak Solid State Laser Division, Raja Ramanna Centre for Advanced Technology, Dept. of Atomic Energy, Indore [#] Shri G.S. Institute of Technology and Science, Indore
P-9	Cost-effective fiber bragg grating temperature sensor using optical power detection Trivesh Kumar and B.B.Padhy² Indian Institute of Technology, Kanpur – 208016 ² Defence Institute of Advanced Technology, Girinagar, Pune - 411 025
P-10	Inscription and analysis of special long period grating as low cost replacement for fiber bragg grating for application in fiber communication Gagandeep Purohit, Harneet V. Thakur, B. B. Padhy and S. M. Nalawade Defence Institute of Advanced Technology, Girinagar, Pune - 411 025
P-11	Fiber bragg grating temperature sensor using OTDR based interrogator Shelly Garg[#], J.K.Chhabra* and B.C.Choudhary** *Jind Institute of Engineering and Technology, Jind **National Institute of Technical Teachers Training and Research, Chandigarh
P-12	Throughput analysis of MAC protocol in radio over fiber Sandeep Arya*, Shelly Garg**, Pravin Kaushik** and Kapil** *Guru Jambheshwar University of Science & Technology, Hisar **Jind Institute of Engineering and Technology, Jind, India.
P-13	Teflon coated fiber bragg grating sensor response at Cryogenic temperatures P.Saidi Reddy, R.L.N Sai Prasad*, K.S.Narayana, D.Sen Gupta and M. Sai Shankar Department of Physics, National Institute of Technology, Warangal, A.P
P-14	Long period gratings in highly birefringent (HI-BI) photonic crystal fibers: new sensing opportunities Sanjay Kher, Manoj Saxena, Smिता Chaubey, Jai Kishore, Lokendra Chandravanshi and S. M. Oak .Fiber Optics Lab, SSLD, RRCAT, Indore-452013
P-15	Performance evaluation of indigenously developed fiber bragg grating sensor B. Arun Sundaram¹, K.Kesavan¹, S.Parivallal¹, K. Ravisankar¹, Umesh Tiwari², G.C.Poddar², Subash.C.Jain² and Nahar Singh² ¹ Structural Engineering Research Centre, Chennai, India ² Central Scientific Instruments Organisation, Chandigarh, India Council of Scientific and Industrial Research (CSIR), India

P-16	Spr based fiber optic sensor for the determination of petrol adulteration Sarika Singh, Rajneesh K Verma and B. D. Gupta Department of Physics IIT Delhi New Delhi
P-17	Study of hotspot in power transformer using FBG sensor Umesh Tiwari, R. Bhatnagar, Vinod Gupta, Atesh Kumar, G. C. Poddar, Subhash C. Jain, Sushil K Kaura, Nahar Singh, U.C. Trivedi, N.J. Buch and Pawan Kapur Central Scientific Instruments Organization, Chandigarh, 160030
P-18	Localised surface plasmon resonance based fiber optic sensor with intensity modulation scheme Sachin K. Srivastava, Rajneesh K. Verma and Banshi D. Gupta Department of Physics, Indian Institute of Technology Delhi, New Delhi – 110016, India
P-19	Characterization of PZT macrofiber composite actuator using distributed bragg reflector cavity laser A. K.Dikshit* and S.K.Bhadra Fiber Optics Division, CGCRI, 196, Raja S.C. Mullick Road, Kolkata 700032
P-20	Dispersion properties of chalcogenide As ₂ Se ₃ glass photonic crystal fiber Bhawana Dabas and R. K. Sinha TIFAC- Centre of Relevance & Excellence in Fiber Optics & Optical Communications Applied Physics Department, Delhi College of Engineering (Faculty of Technology, Delhi University) Bawana Road, Delhi –110 042
P-21	Performance analysis of fourier and vector matrix multiply methods for phase reconstruction from slope measurements M B Roopashree, Akondi Vyas, B R Prasad ¹ Indian Institute of Astrophysics, 2 nd Block, Koramangala, Bangalore ² Indian Institute of Science, Bangalore
P-22	Compensation of higher order dispersion in RZ data format Manjit Singh*, Dr. Harish Kumar** Dr. B. C. Choudhary*** * Guru Nanak Dev University R.C. Jalandhar **Sant Longowal Institute of Engineering & Technology, Longowal-148106 *** NITTTTR, Sector 26, Chandigarh
P-23	Simulation of In _x Ga _{1-x} N based p-i-n solar cells Manish Mathew¹, Bhupendra Shukla² and Kuldip Singh¹ ¹ Optoelectronic Devices Group, Central Electronics Engineering Research Institute, Pili, Pilani, 333031 ² Shri G.S. Institute of Technology and Science, Indore, M.P.
P-24	Design and simulation of MEMS mechanical gyroscope G. Vinod and R. Manjusha Optoelectronics Division, SAMEER, IIT Campus, Powai, Mumbai-400076
P-25	Finite difference analysis of index guiding micro-structured optical fiber Fozia Aziz and Gireesh G. Soni Dept. of Applied Physics, S.G.S.I.T.S., Indore
P-26	Effect of fifth order nonlinearity on optical wave propagation in fiber bragg grating Santosh Pawar¹, Shubhada Kumbhaj^{1,*}, Pratima Sen² and Pranay Kumar Sen¹ ¹ Department of Applied Physics, S G S Institute of Technology & Science, Indore, 452003, India ² School of physics, Devi Ahilya Vishvavidyalaya, Khandwa Road, Indore, 452017, India
P-27	FEM analysis of an elliptical-core segmented cladding fibre P. Singh, A. Kumar, V. Rastogi, A. Agrawal¹ and B. M. A. Rahman¹ Department of Physics, Indian Institute of Technology Roorkee, Roorkee 247 667, India ¹ School of Engineering and Mathematical sciences, City University London, EC1V OHB
P-28	Simulation study on 1.55 μm travelling wave-semiconductor optical amplifier based differential in-line detector Madhav Boggavarapu and M Ganesh Madhan Department of Electronics Engineering, Madras Institute of Technology Campus, Anna University Chrompet, Chennai - 600044. India.
P-29	Effect of y-junction residue on performance of polymeric optical splitter Rahul Singhal, M. N. Satyanarayan and Suchandan Pal¹ Electrical & Electronics Engineering Group, BITS Pilani, Pilani - 333031 ¹ Optoelectronic Devices Group, Central Electronics Engineering Research Institute (CSIR), Pilani
P-30	Analytical modeling and ATLAS simulation of a homojunction LED for mid-infrared (MIR) applications Sanjeev¹, S. Gangwar¹ and P. Chakrabarti² ¹ Institute of Engineering and Technology, MJP Rohilkhand University, Bareilly -243 006 ² Centre for Research in Microelectronics (CRME), Institute of Technology, Banaras Hindu University, Varanasi -221 005
P-31	
P-32	A phenomenological model to investigate excitonic effects on photoluminescence of nanosilicon Testfaye Shiferaw and S.K. Ghoshal

	Addis Ababa University, Addis Ababa, Arat Kilo, P.O. Box - 1176, Ethiopia
P-33	Finite element analysis of cantilever structures for MEMS inertial sensors G. Vinod and R. Manjusha SAMEER, IITB Campus, Powai, Mumbai-400076
P-34	The advancement in photonics makes optical lithography reinvigorate and future seems as bright as ever Rakesh Dhar¹, Sureshth Ahuja², Narender Kumar¹ and D.Mohan¹ ¹ Applied Physics, Guru Jambheshwar University of Science & Technology, Hisar-125001 ² Research in Electronics and Software Design Technology, Noida- 201301
P-35	Label free detection of biological warfare agent staphylococcal enterotoxin B using high affinity monoclonal antibody Garima Gupta, Pawan K. Singh, Virendra V. Singh, M. Boopathi*, D.V. Kamboj, Beer Singh and R. Vijayaraghavan Defence Research and Development Establishment, Gwalior-474002, India.
P-36	LIF spectra of dimethoate treated <i>Cajanus Cajan L.</i> J K Pandey¹ and R. Gopal^{1,2} ¹ M.N.Saha Center of Space Studies, IIDS, Nehru Science Center ² Laser Spectroscopy and Nanomaterial Lab, University of Allahabad, Allahabad
P-37	Design and development of passive night vision binocular with replaceable objective lenses Saralesh Yadav, Abhijit Chakraborty, SPS Jalal and AK Musla Instrument Research & Development Establishment, Dehradun-248008
P-38	Modified Y-branched, proton exchanged lithium niobate crystal based digital optical switch (DOS) for 187.5 THz operations Shruti Kalra , Ghanshyam Singhb, T.P. Bhattacharjeea, Vijay Janyanic and R.P. Yadav Department of ECE, Malaviya National Institute of Technology, Jaipur
P-39	Microstructures and diffraction gratings in poly (dimethyl siloxane) fabricated using femtosecond pulses K. L. N. Deepak^a, S. Venugopal Rao^{b, #}, R. Sai Santosh Kumar^a and D. Narayana Rao^{a*} a School of Physics b ACRHEM, University of Hyderabad, Hyderabad 500046
P-40	Fabrication and characterization of silica-on-silicon based long-period waveguide grating S Pal, A Chauhan, M Singh, P Kumar, M Sharma, N Pradhan, K Singh, C Dhanavanti, A Bhatnagar1, B D Choudhury1, C Sengupta1 and S Sinha1 Central Electronics Engineering Research Institute (CEERI), Pilani 1Optoelectronics Division, SAMEER, Mumbai.
P-41	Impact of optical cross talk on R-O-F WDM networks C.M. Negi1, Rupali Phatak1 and Jitendra Kumar2 1 Dept. of Appl. Phys., SGSITS, 23, Park Road, Indore-452 003, M.P. 2Dept. of E& I, ISM University, Dhanbad - 826004, Jharkhand, India
P-42	Performance improvement of ground to deep space optical link receiver using spatial diversity technique Hemani Kaushal1, Ankita Singh2, V.K.Jain3 and Subrat Kar1 1 Indian Institute of Technology, Delhi-100 016 2 Vellore Institute of Technology, VIT University, Tamil Nadu-632 014 3 Universiti Teknologi PETRONAS (UTP), Malaysia
P-43	Transmission performance of 2.4 GHz RF modulated optical link Kausalya Balasubramanian¹ and M.Ganesh Madhan² ¹ Cisco Systems Inc, 3600 Cisco Way, San Jose, CA 95134, USA ² Anna University - MIT Campus, Chennai – 44
P-44	Study on optical properties of sputter deposited ZnO thin films on silicon Sunita Mishra, Pragya Tripathi, B Koti Reddy, A K Paul and Pawan Kapur Central Scientific Instruments Organisation, Chandigarh
P-45	Development of polarization sensitive optical coherence tomography for optoelectronic material characterization A. Vyas, P. Patharia, J. Solanki,† P. Sent† and J. T. Andrews <i>Shri G S Institute of Technology & Science, Indore - 452 003 India.</i> <i>†Laser Bhawan, School of Physics, Devi Ahilya University, Khandwa Road, Indore - 452 007 India</i>
P-46	High reflectivity phase conjugation in transversely magnetized diffusion driven semiconductors M. Singh¹ and S. Duan² ¹ Amity School of Engineering & Technology, Amity University, Noida-201301 ² Guru Jambheshwar University of Science & Technology, Hisar-125001
P-47	A new emission band system of silicon dimer K. S. Ojha and R. Gopal University of Allahabad, Allahabad-211002
P-48	Diagnostics of silicon plasma produced in argon atmosphere K. S. Ojha and R. Gopal University of Allahabad, Allahabad-211002
P-49	Piezoelectric contributions to coherent brillouin scattering in doped semiconductors

	M. Singh¹, S. Duhan², U.C. Srivastav¹ and R.S. Pandey¹ ¹ Amity School of Engineering & Technology, Amity University, Noida-201301 ² Guru Jambheshwar University of Science & Technology, Hisar-125001
P-50	Detection of partial discharges using optoelectronic method S. Karmakar¹, N. K. Roy¹ and P. Kumbhakar² ¹ National Institute of Technology, Durgapur-713209 ² National Institute of Technology, Durgapur-713209, India
P-51	Photoconductivity of Sn _{0.2} Bi _{1.8} Te ₃ thin films P.H.Soni, S.R.Bhavsar, M.P.Jani, S. M. Vyas **, K.R.Shah, C.F.Desai, G.R.Pandya, Dimple Shah*** and M. M. Patel The M. S. University of Baroda, Vadodara *Sigma Pharmaceuticals Plc, Herts, WD24 4YR, UK ** School of Sciences, Gujarat University, Ahmedabad *** SVNIT, Surat, India.
P-52	Influence of laser intensity on the kinetics of photodarkening in a-As ₂ Se ₃ thin films Dinesh C. Sati^{1*}, R. Kumar¹, R. M. Mehra², H. Jain³ and Ashtosh Ganjoo³ ¹ Department of Physics, Gurukula Kangri University, Haridwar 249 404. India ² Department of Electronic Science, University of Delhi South Campus 110 021, India ³ Department of Materials Science and Engineering, Lehigh University, Bethlehem, Pennsylvania, 18015, USA
P-53	Temperature dependent properties of nanocrystalline ZnO Vinod Kumar^{1,2}, L.P.Purohit¹ and R.M.Mehra² ¹ Department of Physics, Gurukula Kangri University, Haridwar – 249 404 ² Department of Electronic Science, University of Delhi South Campus, New Delhi – 110 021
P-54	Fabrication of 980 nm high power broad area laser diodes Kuldip Singh, Manish Mathew, Mahendra Singh, Nirmal Pradhan, Atul Sharma, Pawan Kumar, Ashok Chauhan, Ashok Kumar Gupta, B.C. Pathak and S. Johri Optoelectronic Devices Group, Central Electronics Engineering Research Institute, Pilani- 333031
P-55	Portable instrument for the determination of manganese in steel Prasant K. Mahapatra*, Mewa Singh, Laxmi Pandey and M.L. Singla Materials Research Division, Central Scientific Instruments Organisation, Chandigarh
P-56	Generation of high-order Bessel-like beams using a conical tip fiber Geo M. Philip and Nirmal K. Viswanathan* School of Physics, University of Hyderabad, Hyderabad-500046,
P-57	Switchable vector beam generation using optical fiber V.V.G. Krishna Inavalli and Nirmal K. Viswanathan School of Physics, University of Hyderabad, Hyderabad-500046
P-58	Physical properties of GeSePb glasses Kamal Kumar*, L.P. Purohit, R. Kumar and R.M. Mehra[#] Department of Physics, Gurukula Kangri University, Haridwar-249407 [#] Department of Electronic Science, University of Delhi South Campus, New Delhi-110021
P-59	Synthesis of nanocrystalline porous silicon layers by anodization method for optoelectronic applications *R. S. Dubey and D. K. Gautam Department of Electronics, North Maharashtra University, Post Box 80, Umavinagar, Jalgaon (M.S.)
P-60	Investigations on the effect of thickness of organic layer on metal organic interface barrier of OLEDs Rakhi Grover^{1,2}, Ritu Srivastava¹, D. S. Mehta² and M.N.Kamalasanan¹ ¹ Center for Organic Electronics, Polymeric and Soft Materials Section, National Physical Laboratory, New Delhi-110012 ² <i>Instrument Design Development Center, Indian Institute of Delhi, New Delhi-110016</i>
P-61	Optical studies of surface modified indium tin oxide coated glass substrates using gold nano-particles doped conducting polymer Gyanendra Singh¹, Kanchan Saxena², V.K. Jain² and Dalip Singh Mehta¹ ¹ IDDC, Indian Institute of Technology Delhi, Hauz Khas, New Delhi -110 016 ² AIARS M&D, Amity University, UP Sector125, Noida UP
P-62	Discriminator threshold selection logic to improve signal-to-noise ratio in photon counting using photomultiplier tubes P. K Dubey, Pavan S. Kulkarni, B. C. Arya and S. L Jain Radio and Atmospheric Science Division, National Physical Laboratory, New Delhi
P-63	Effect of background gas pressure and laser irradiance on the temporal evolution of plasma parameters in laser produced zinc plasma S.C. Singh and R. Gopal Laser Spectroscopy and Nanomaterials Lab, Department of Physics, University of Allahabad, Allahabad
P-64	Synthesis and electroluminescence characterization of cadmium complex ^a Rahul Kumar, ^b Ritu Srivastava, ^a Kulveer Singh, ^b Amit Kumar, ^b Gayatri Chauhan, ^b S.S. Bawa and ^b M.N. Kamalasanan ^a School of Physics and Material Science, Thapar University Patiala, Punjab. ^b Centre for Organic Electronics, National Physical Laboratory, New Delhi-110012
P-65	White organic light emitting diode by insertion of thin buffer layer in the hole transport layer Arunandan Kumar^{1,2}, Ritu Srivastava¹, Priyanka tyagi¹, D.S.Mehta² and M.N.Kamalasanan¹ ¹ Center for Organic Electronics, National Physical Laboratory, New Delhi-110012 ² Instrument Design and Development Center, Indian Institute of Technology Delhi, New Delhi-110016

P-66	Compact fluorescent lamps – how safe for human being H.C. Kandpal, V.K. Jaiswal and Parag Sharma National Physical Laboratory, New Delhi-110012
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SATURDAY, OCTOBER 31, 2009 (16.15-17.30 hrs) POSTER SESSION – II	
P-67	Extensional function ability of a pancharatnam-type achromatic half-wave plate Chun Ye Measurement and Sensor Laboratory, University of Oulu, Fin-87400 Kajaani, Finland
P-68	All optical method for converting a decimal number to its equivalent binary number using frequency encoding principle Soma Dutta and Sourangshu Mukhopadhyay Department of Physics, Burdwan University, Burdwan-713104 (WB)
P-69	Joint-transform correlator based drpe system in fractional domain, employing modified lohmann's second type system Pramod Kumar*, Joby Joseph and Kehar Singh Physics Department, Indian Institute of Technology Delhi, New Delhi-110016
P-70	Quantum teleportation using entangled 3-qubit states and semi-magic states for 3-qubits Hari Prakash* and Ajay Kumar Maurya** Department of Physics, University of Allahabad, Allahabad-211002
P-71	Compensation of higher order dispersion in RZ data format Manjit Singh*, Harish Kumar** and B. C. Choudhary*** * Guru Nanak Dev University R.C. Jalandhar, Punjab **Sant Longowal Institute of Engineering & Technology, Longowal-148106 *** NITTTR, Chandigarh
P-72	Photoluminescent display devices based on gold nanoparticles doped ferroelectric liquid crystals J. Prakash^{1,2}, A. Kumar², D. S. Mehta¹ and A. M. Biradar² ¹ Indian Institute of Technology Delhi, Hauz Khas, New Delhi-110016 ² National Physical Laboratory, Dr. K. S. Krishnan Road, New Delhi-110012
P-73	Content searching with beam conditioning techniques in a holographic data storage system Bhargab Das*, Joby Joseph and Kehar Singh Photonics Group, Physics Department, Indian Institute of Technology Delhi, New Delhi-16
P-74	Encryption and decryption using a phase mask set consisting of a random phase mask and a sinusoidal phase grating in the fourier plane Madan Singh^a, Arvind Kumar* and Kehar Singh ^a Instruments Design, Development, and Facilities Center, Staff Road, Ambala, Haryana -133001 Indian Institute of Technology; Delhi, Hauz Khas, New Delhi-110016
P-75	Nanoparticles doped liquid crystal material for optical memory devices A. Kumar¹, J. Prakash^{1,2}, T. Joshi¹, D. S. Mehta², and A. M. Biradar¹ ¹ National Physical Laboratory, Dr. K. S. Krishnan Road, New Delhi ² Indian Institute of Technology Delhi, Hauz Khas, New Delhi
P-76	Evolution and development of fibre optic gyroscopes Gargi Meharu System Integration, ARDC, HAL, Bangalore
P-77	Magnetic resonance imaging of the human facial musculature Vassilios Sarafis Institute of Physical Biology, University of South Bohemia, Zamek 136, Nove Hradky, Czech Republic
P-78	Image encryption using chaos and radial hilbert transform Madhusudan Joshi[§], Chandra Shakher[±] and Kehar Singh* [§] The International Centre for Automotive Technology, IMT Manesar, Haryana [±] Instrument Design and Development Centre, Indian Institute of Technology Delhi, New Delhi *Department of Physics, Indian Institute of Technology Delhi, New Delhi
P-79	Structural and electrical properties of MBE grown LT AlGaAs/GaAs photorefractive quantum well structures Sunita Mishra and C Ghanshyam CSIO, Chandigarh
P-80	Optical and dielectrical properties of perovskite $Pb_{0.3}(Zn_{0.35}W_{0.35})O_3$ D.Tawde^a and M.Srinivas^a ^a Department of Physics, Faculty of Science, The Maharaja Sayajirao University of Baroda, Vadodara, 390002, Gujarat
P-81	Development and characterization of ultra-broadband high damage threshold all-dielectric interference laser mirror S. Thakur, N.M. Kamble, R.B. Tokas, A. Biswas and N.K. Sahoo Spectroscopy Division, Bhabha Atomic Research Centre, Trombay, Mumbai-400085
P-82	Preparation and photoconducting properties of AgGaTe ₂ thin films Shahera S. Patel¹, B.H. Patel², and Tejas S. Patel³ ¹ University Science Instrumentation Centre, Sardar Patel University, V.V. Nagar – 388 120 ² Department of Electronics, Sardar Patel University, V.V.Nagar – 388 120 ³ Sardar Vallabhbhai Patel Institute of Technology (S.V.I.T.), Vasad

P-83	<p>Nonlinear optical studies on bis-chalcone doped polymer films P. Poornesh^{1,2}, G.Umesh², K.Ravi³, K.B.Manjunatha², P.K. Hegde³, M.G.Manjunatha³ and A.V. Adhikari³ ¹Manipal Institute of Technology, Manipal University, Manipal, Karnataka 576104 ²National Institute of Technology Karnataka, Surathkal, Mangalore, Karnataka 575025 ³National Institute of Technology Karnataka, Surathkal, Mangalore, Karnataka 575025</p>
P-84	<p>Astigmatism, curvature and distortion of diffractive lenses on finite substrates U. Dutta and L. N. Hazra University of Calcutta, 92 Acharya Prafulla Chandra Road, Kolkata 700 009</p>
P-85	<p>Scattering of light by rough surface: analytical formulae for small and large angle scattering S. Chatterjee and Ravinder Kumar Banyal Indian Institute of Astrophysics, Bangalore-560034</p>
P-86	<p>Optical birefringence study of Bis S-benzylisothiuronium tetrachlorido zincate (II) P. Hemalatha^a and V. Veeravazhuthi^b ^aPSG College of Technology, Coimbatore – 641 004 ^bPSG College of Arts and Science, Coimbatore – 641 014</p>
P-87	<p>Optical design of an echelle grating based atomic emission spectrometer for simultaneous spectro-chemical analysis D V Udupa and Sanjiva Kumar Spectroscopy Division, Bhabha Atomic Research Centre, Mumbai 400 085</p>
P-88	<p>Optical design of a 10 meter remote viewing periscope using radiation hard glasses D V Udupa and Sanjiva Kumar Spectroscopy Division, Bhabha Atomic Research Centre, Mumbai 400 085</p>
P-89	<p>Simulation of a polarization pupil filter using magneto-optic lens S. Chakraborty and S. C. Bera* Department of EEE, BIT, Mesra, Ranchi-835215 *University of Calcutta, 92 APC Road, Calcutta-700009</p>
P-90	<p>Evaluation of an objective of a passive night sight by measuring MTF M P Singh, Prakash Ghansela, Kanchan Chandra, L M Pant and G P Dimri Instruments Research & Development Establishment, Dehradun</p>
P-91	<p>Design and analysis of a fourier transform lens Ranabir Mandal, V K Mishra and Ikbal Singh Instruments Research and Development Establishment, Dehradun</p>
P-92	<p>Response of a human eye to periodic targets in the presence of stiles - crawford effect I P K Mondal and S Ghosh School of Optics, C-31, Tirumala Towers, Gandhinagar, Hyderabad</p>
P-93	<p>Vehicular head up display and the challenges involved in system design Harry Garg¹, Sanjay Sharma¹, P.P. Bajpai¹, Nidhi² ¹Central Scientific Instruments Organization, Chandigarh ²UIET, Panjab University, Chandigarh</p>
P-94	<p>Analytical study of fiber nonlinearities in long-haul DWDM optical transmission systems at high data rate Gurmeet Kaur, M.L.Singh* and M.S.Patterh University College of Engineering, Punjabi University, Patiala *Department of Electronics Technology, Guru Nanak Dev University, Amritsar</p>
P-95	<p>Optics for laser seeker Sucharita Sanyal, Ranabir Mandal, P.K. Sharma and Ikbal Singh Instruments Research and Development Establishment, Raipur Road, Dehradun-248008</p>
P-96	<p>Optical design of variable focus liquid lens for camera phone application Janki Vallabh Choudhary and Anurag Sharma Department of Physics, IIT Delhi, New Delhi 110016</p>
P-97	<p>Indigenously developed dual polarization micro pulse lidar using single PMT for aerosol and nocturnal boundary layer study Pavan S. Kulkarni, P. K Dubey, B. C. Arya and S. L Jain National Physical Laboratory, New Delhi-12</p>
P-98	<p>Two point resolution of annular apertures P. Mukherjee and L. N. Hazra University of Calcutta, 92 Acharya Prafulla Chandra Road, Kolkata</p>
P-99	<p>Optimum phase filters for 3D resolution enhancement N. Reza and L. N. Hazra University of Calcutta, 92 Acharya Prafulla Chandra Road, Kolkata</p>
P-100	<p>Some pitfalls in Polychromatic Image evaluation S. Sircar and L. N. Hazra University of Calcutta, 92 Acharya Prafulla Chandra Road, Kolkata</p>
P-101	<p>Optically Compensated Zoom Lenses: GA Based Structural Design S. Pal and L.N. Hazra University of Calcutta, 92 Acharya Prafulla Chandra Road, Kolkata</p>
P-102	<p>Prediction of wavefronts in adaptive optics to reduce servo lag errors using data mining Akondi Vyas^{1,2}, M B Roopashree¹ and B R Prasad¹ ¹Indian Institute of Astrophysics, 2nd Block, Koramangala, Bangalore ²Indian Institute of Science, Bangalore</p>

P-103	Experiments with phase filter synthesis by SLM for resolution enhancement in microscopic imagery S. Mukhopadhyay, S. Chakraborty, K. Bhattacharya and L. N. Hazra University of Calcutta, 92 Acharya Prafulla Chandra Road, Kolkata
P-104	Squeezing in Hidden optical polarization states Ravi S. Singh,† Gyaneshwar K. Gupta,* and Lallan Yadava‡ Department of Physics, DDU Gorakhpur University, Gorakhpur-273009 (U.P.)
P-105	Velocity changing and dephasing collisions effect on electromagnetically induced transparency in V-type three level atomic system Anil Kumar M. and Suneel Singh University of Hyderabad, School of physics, India - 500046
P-106	Simultaneous polarization squeezing of all three stokes parameters in pure photon number states Ranjana Prakash^{1,2} and Namrata Shukla¹ ¹ Physics Department, University of Allahabad, Allahabad ² M.N. Saha Centre of Space Studies, Institute of Interdisciplinary Studies, University of Allahabad
P-107	Increase in average fidelity of quantum teleportation by decreasing entanglement H. Prakash and M. K. Mishra Department of Physics, University of Allahabad, Allahabad
P-108	Teleportation of entangled coherent state encoded with two-qubit information H. Prakash and M. K. Mishra Department of Physics, University of Allahabad, Allahabad
P-109	Generation of maximally entangled atomic states in cavity QED and quantum teleportation without bell-state measurement Ranjana Prakash ¹ and Ajay K. Yadav ² Department of Physics, University of Allahabad, Allahabad-211002
P-110	Color tuning in organic light emitting diode using a hybrid spacer Priyanka tyagi, Ritu Srivastava, Arunandan Kumar and M.N. Kamalasanan <u>National Physical Laboratory, New Delhi-110012</u>
P-111	Study of optical parametric oscillator (OPO) conversion efficiency with variation in pump beam spot size Rouchin Mahendra, O. P. Naraniya, A. N. Kaul and A. K. Gupta Instruments Research & Development Establishment, Dehradun – 248 008
P-112	Parametric generation in a multi-grating PPLN pumped with DPSS Nd:YVO4 laser Nimish Dixit, Ajay Mishra, O. P. Naraniya and R. Mahendra Instruments Research & Development Establishment, Dehradun – 248 008
P-113	Fabrication of 50mm long fanned & multi grating PPLN chips for 2-5 μm tunable optical parametric oscillator application Ajay Mishra*, U S Tripathi, Ashok Kaul and A. K. Gupta Instruments Research & Development Establishment, Dehradun – 248 008
P-114	Spectral broadening of ultrashort optical pulses in nonlinear photonic crystal fiber Manish Tiwari and V. Janyani Malaviya National Institute of Technology
P-115	Efficient pump conversion into Mid-IR using periodically poled MgO:LiNbO3 based optical parametric oscillator O. P. Naraniya^a, Rouchin Mahendra^a, Nimish Dixit^a, A. N. Kaul^a and A. K. Gupta^a M .R. Shenoy ^b and K. Thyagarajan ^b Department of Physics IIT Delhi, Hauz Khas, New Delhi-110016 ^a Photonics Division, IRDE, Raipur Road, Dehradun -248008
P-116	Simulation of 10 GBPS DWDM transmission system in the presence of fiber nonlinearities Gurmeet Kaur, M.L.Singh¹ and M.S.Patterh University College of Engineering, Punjabi University, Patiala, India. ¹ Department of Electronics Technology, Guru Nanak Dev University, Amritsar
P-117	Nonlinear studies of fuchsin dyes with its application as a potential optical limiter G.Vinitha^{1*} and A.Ramalingam² ¹ B.S.A. Crescent Engineering College, Vandalur, Chennai- 48 ² Centre for Laser Technology, Anna University, Chennai-25
P-118	Controlling spontaneous emission lifetimes of Tb³⁺ with Pr³⁺ Codoping Deepak*, G. Manoj Kumar* and D. Narayana Rao* *Advanced Center of Research in High Energy Materials (ACRHEM) *School of Physics, University of Hyderabad, Hyderabad- 500 046
P-119	Growth and characterization of non-linear optics single crystal S.S. Hussaini, K. Datta, P. Ghosh, and Mahendra D. Shirsat* Optoelectronics and Sensor Research Laboratory, Department of Physics, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431 004, (MS),
P-120	Strain optical constants near the surface of lithium tantalate optical waveguides Vardhani Chunduru, V.Dhanunjana chari and Karthik Osmania University,Hyderabad - 500007. Andhra Pradesh
P-121	Self-locking of a mode locked fibre ring laser S. Thiruthakkathevan, O. Praveena and Anil Prabhakar Dept. of Electrical Engineering, IIT-Madras

P-122	<p>Non-classical properties of superposition of two coherent states shifted in phase by an angle ϕ Hari Prakash^{1,2,*} and Pankaj Kumar^{3,**} 1. Department of Physics, University of Allahabad, Allahabad (U.P)-211002 2. M. N. Saha Centre of Space Studies, Institute of Interdisciplinary Studies, University of Allahabad, Allahabad (U.P)-211002 3. Department of Physics, Bhavan's Mehta Mahavidyalaya (V. S. Mehta College of Science), Bharwari, Kaushambi (U.P) - 212201</p>
P-123	<p>Laser safety- hazard identification methodology & engineering control measures S. Thalpathi Raj, Jai Prakash, Raj Kumar and Manpreet Singh Terminal Ballistics Research Laboratory, Sector 30, Chandigarh</p>
P-124	<p>Role of two-photon absorption on solitary wave propagation in a silicon waveguide Manirupa Saha, Amarendra K.Sarma and Anjan Biswas¹ Indian Institute of Technology Guwahati, Guwahati-781039 ¹Center for Research and Education in Optical Sciences and Applications, Department of Applied Mathematics and Theoretical Physics, Delaware State University, Dover, DE 19901-2277, USA</p>
P-125	<p>Investigation of nonlinear optical properties of donor substituted hydrazone derivatives S Vijayakumar^a, P. Sudheesh^a, K.N. Sharafudeen^a, M. Babu^b, Balakrishna Kalluraya^b and K Chandrasekharan^a ^a Laser and Nonlinear Optics Lab, Department of Physics, National Institute of Technology Calicut ^b Department of studies in Chemistry, Mangalore University, Karnataka</p>
P-126	<p>Analysis of stimulated brillouin scattering characteristics in frequency domain M.Kasinathan, C.Babu Rao, N.Murali, T. Jayakumar, Baldev Raj, Aleksander Wosniok* and Katerina Krebber* Indira Gandhi Centre For Atomic Research, Kalpakkam -603102 *Federal Institute for Materials Research and Testing(BAM), Berlin ,Germany</p>
P-127	<p>Sub-diffraction propagation of images using saturated absorption spectroscopy T. N. Dey Department of Physics, Indian Institute of Technology Guwahati, Guwahati-781039</p>

SUNDAY, NOVEMBER 1, 2009 (10.00-11.00 hrs)
POSTER SESSION – III

P-128	Cost effective synthesis procedure of barium titanate and lead titanate nanoparticles and their room temperature PL spectrum study. A.C. Roy & D. Mohanta Tezpur University, PO: Napaam, Assam 784 028
P-129	Synthesis and optical limiting properties of amine coated silver nanoparticles Naresh Saini^a, Reji Philip^b, Sib Krishna Ghoshal^c, Neeraj Dilbaghi^a and Sunita Sharma^b Guru Jambheshwar University of Science and Technology, Hisar, Haryana ^b Light and Matter Physics Group, Raman Research Institute, Bangalore, Karnataka ^c Addis Ababa University, Addis Ababa, Ethiopia
P-130	Shape and size dependent red shift in surface plasmon absorption band of nanocrystalline silver Ajay Soni, G. S. Okram and V. Ganesan UGC-DAE Consortium for Scientific Research, University Campus, Khandwa Road, Indore - 452001
P-131	Electroluminescence from silicon and germanium nanostructures Getnet Melese and S. K. Ghoshal Addis Ababa University, Addis Ababa, Ethiopia
P-132	Preparation of gold nanoparticles in pmma by laser ablation and its nonlinear optical properties K.N. Sharafudeen, P. Sudheesh, G.R.C. Reddy and K. Chandrasekharan National Institute of Technology Calicut, Calicut-673601
P-133	Comparison of optical and morphological properties of uncapped and glutathione capped ZnS nanoparticles Manoj Sharma, *Sunil Kumar, **Sukhvir Singh and OP Pandey School of Physics and Materials Science, Thapar University, Patiala-147 004 (Punjab) *Maharishi Markandeshwar University, Mullana (Ambala)-133 203 (Haryana) **Electron Microscopy Division, National Physical Laboratory, New Delhi
P-134	Correlation of time resolved photoluminescence behavior with capacitance of nano-porous polycarbonate membrane *Rajesh Kalita, J.K Sharma and Sunil Kumar Maharishi Markandeshwar University, Mullana (Ambala)
P-135	Second harmonic generation in ZnO Nanorods M. Das¹, S. Rana² and P. Sen^{2*} 1Shri G. S. Institute of Technology & Science, Indore-452 003 2Devi Ahilya Vishwavidyalaya, Takshashila Campus, Indore-452 017
P-136	Applications of molecularly imprinted polymers in surface plasmon resonance sensing Garima Gupta, Yamini Singh, Virendra V. Singh, M. Boopathi*, Om Kumar, Beer Singh and R. Vijayaraghavan Defence Research and Development Establishment, Gwalior-474002
P-137	Intense photoluminescence from nanostructured MoO ₃ films I. Navas, R. Vinodkumar, A. P. Detty and V. P. Mahadevan Pillai Department of Optoelectronics, University of Kerala, Kariavattom, Trivandrum-695581
P-138	Strong exciton-photon coupling in low-Q microcavity K. Pradeesh and G.Vijaya Prakash* ¹ Indian Institute of Technology Delhi, New Delhi
P-139	Preparation of chitosan based silver nanocomposites by a facile method Nidhi Nigam, Santosh Kumar, T. Ghosh and P. K. Dutta MN National Institute of Technology, Allahabad-211004
P-140	Optical characterizations of copper oxide nanomaterial R.K. Swarnkar, S.C. Singh and R. Gopal University of Allahabad, Allahabad-211002
P-141	A model for thermoluminescence from silicon nanostructures Nebiyu Gemechu and S.K. Ghoshal Addis Ababa University, Faculty of Science, Addis Ababa, Arat Kilo, Ethiopia
P-142	Non destructive testing and defect detection using moire deflectometry Satya Prakash, Santosh Rana, Shashi Prakash¹ and Osami Sasaki* Institute of Engineering & Technology, Devi Ahilya University, Khandwa Road, Indore-452017 *Faculty of Engineering, Niigata University, Niigata-shi 950-2181, Japan
P-143	Encryption and decryption using double random phase encoding in 2f-2f imaging configuration Pramod Kumar, Arvind Kumar*, Joby Joseph and Kehar Singh Indian Institute of Technology; Delhi, Hauz Khas, New Delhi-110016
P-144	Experimental investigations on boundary diffraction wave Raj Kumar^{1,2}, Sushil K Kaura¹, D.P. Chhachhia¹ and A.K. Aggarwal^{1,3} ¹ CSIO, Sector 30, Chandigarh ² Institute for Plasma Research, Bhat, Gandhinagar ³ House No.166/1, Sector 45-A, Chandigarh

P-145	White light verifiable security holograms with hidden signatures Raj Kumar^{1,2}, Sushil K Kaura¹, D.P. Chhachia¹ and A.K. Aggarwal^{1,3} ¹ CSIO, Sector 30, Chandigarh ² Institute for Plasma Research, Bhat, Gandhinagar ³ House No.166/1, Sector 45-A, Chandigarh
P-146	Information reduction by numerical interception of holograms in lensless fourier transform digital composite holography Md. Mosarraf Hossain and Chandra Shakher* 1Vikram Sarabhai Space Center, Thiruvananthapuram-695022, Kerala 2 Indian Institute of Technology, Delhi, New Delhi – 110016
P-147	Realization of optical logic gates using photonic crystal A.P. Kabilan¹, X. Susan Christina², P. Elizabeth Caroline³, ¹ Chettinadu College of Engg. & Tech., Karur, 639114, India ² Mookambigai College of Engg., Trichy- 622 502, India ³ JJ College of Engg & Tech, Trichy –620 009
P-148	Design of photonic crystal slab waveguide based infiltrated liquid sensors Shruti, R.K Sinha and R. Bhattacharyya* Delhi College of Engineering, (Faculty of Technology, University of Delhi), Bawana Road, Delhi-110042 *National Physical Laboratory, New Delhi-110060
P-149	Reflection properties and abnormal behaviour of left handed material G N Pandey¹ and S. P. Ojha² ¹ Amity School of Engg & Tech., Amity University Noida ² Department of Applied Physics, IT BHU Varanasi
P-150	Enhancement of omnidirectional high reflection wavelength range by using a one-dimensional metalodielectric photonic band gap material Suneet Kumar Awasthi Amity University Rajasthan, Jaipur-302020,
P-151	Design of high birefringence photonic crystal fiber with zero dispersion wavelength at 0.64 μm S. Konar and Rakhi Bhattacharya Birla Institute of Technology, Mesra-835215, Ranchi
P-152	Analysis of optical properties of nonlinear photonic crystals Sreeparvathi Warriar¹, Rohit K R², T.Srinivas³ ¹ Centre of Excellence in Lasers and Optoelectronic Sciences, CUSAT, Kochi-682022, India. ² International School of Photonics, CUSAT, Kochi-682022, India. ³ Applied Photonics Lab, Indian Institute of Science, Bangalore-560012
P-153	Optical time division multiplexing by using photonic band gap structures Anirudh Banerjee Amity School of Engineering and Technology, Amity University, Lucknow-226010, U.P.
P-154	Negative refraction in visible region from metallo-dielectric photonic crystal: design, characterization and device application Monika Rajput and R. K. Sinha Delhi College of Engineering, (Faculty of Technology, University of Delhi), Bawana Road, Delhi
P-155	Rectangular core photonic crystal fibers: first order perturbation approach Anshu D Varshney and R.K.Sinha Delhi College of Engineering, (Faculty of Technology, University of Delhi), Bawana Road, Delhi
P-156	Simulation of metallic and metallic dielectric photonic structures using the optiFDTD software Md. Alim Khan, Poonam Kumari, Ujjwal Jyoti, B.B.Tiwari and Ajay Shankar Department of Applied Physics, GJUS&T, Hisar-125001
P-157	Band structure and reflection behaviour of one dimensional magnetic photonic crystal G N Pandey¹, Khem B Thapa², Arun Kumar³ & S. P. Ojha⁴ ¹ Amity school of Engg & Tech., Amity University Noida ² UIET, CSIM University Kanpur ³ Amity Institute of Telecom Technology & Management, Amity University Noida, ⁴ Department of Applied Physics, IT BHU Varanasi
P-158	Optical bistability of gap solitons in photonic crystal waveguides Ranjan Tripathi¹, Ajay Shankar and BB Tiwari² ¹ DOEACC Centre, Gorakhpur, (UP), India ² GJ University of Science & Technology, Hisar, Haryana
P-159	Investigation on the single mode property of elliptical (five rings) air hole photonic crystal fiber Ritu Sharma and Vijay Janyani Malaviya National Institute of Technology, Jaipur (Rajasthan)
P-160	Quantum logic operation in photonic crystal lattice K.R. Rohit, Sreeparvathi Warriar¹ and T. Srinivas² International School of Photonics, CUSAT, Kochi-682022, India. ¹ Centre of Excellence in Lasers and Optoelectronic Sciences, CUSAT, Kochi-682022 ² Indian Institute of Science, Bangalore-560012
P-161	Analysis of photonic crystal beam-splitters K.R. Rohit, Sreeparvathi Warriar¹ and T. Srinivas² International School of Photonics, CUSAT, Kochi-682022, India. ¹ Centre of Excellence in Lasers and Optoelectronic Sciences, CUSAT, Kochi-682022 ² Indian Institute of Science, Bangalore-560012

P-162	Design of a tunable fabry perot photonic band gap filter Renilkumar M and Prita Nair SSN College of Engineering, Tamilnadu
P-163	Digital long focal length lenslet array using spatial light modulator Akondi Vyas^{1,2}, M B Roopashree¹ and B R Prasad¹ ¹ Indian Institute of Astrophysics, Koramangala, Bangalore ² Indian Institute of Science, Bangalore
P-164	InAsSb/InAsSbP DH-laser for free space optical communication in mid-infrared spectral region Sanjeev, S. Gangwar and P. Chakrabarti¹ Institute of Engineering and Technology, MJP Rohilkhand University, Bareilly -243 006 ¹ Institute of Technology, Banaras Hindu University, Varanasi -221 005
P-165	Graphical methodology to analyze and interpret differentiated reliability in WDM optical network Aditya Goel and Jitendra Saxena Dept. of Electronics & Telecommunications, MANIT, Bhopal
P-166	GSM signal transmission through external modulated single mode fiber link S. Sathyanandan, R. Swaminathan, R. Lavanya, S. Piramasubramanian and M. Ganesh Madhan MIT, Anna University Chennai, Chennai 600 044
P-167	Characterization of fiber bragg grating as in-line transmission component in ofc networks Onkar Chand¹, BC Choudhary², and SS Pattnaik² 1. Institute of Engineering & Technology, Bhaddal, Ropar 2. NIITR, Sector-26 Chandigarh
P-168	Performance evaluation of optical CDMA networks using WT/MPR and multiclass OOCs in local area network Sanjay Saini, B.C.Choudhary* and S.S.Pattanaik* Govt. Polytechnic Alwar * NITTR, Sec-26, Chandigarh
P-169	Comparison of coding schemes and detection techniques in optical CDMA networks Amit Pandey and C.M. Negi SGSITS, 23, Park Road, Indore-452 003, M.P
P-170	All-optical FO-CDMA network: performance analysis E. S. Shivaleela, S. Ganesh and T. Srinivas Indian Institute of Science, Bangalore 560012
P-171	Characterization of optical properties of Su-8 and fabrication of optical components Om Prakash Parida and Navakant Bhat Indian Institute of Science, Microelectronics Lab., Bangalore
P-172	Design and implementation of a novel set of 3D codes for OCDMA LAN system at 5Gbps Shilpa Jindal and Neena Gupta Punjab Engineering College, Deemed University, Sector 12 , Chandigarh
P-173	A Full-duplex radio-on-fiber transport systems based on DFB LD with main and side modes injection-locked technique A.S.Patra¹ and Hai-Han Lu² ¹ Haldia Institute of Technology, Haldia, India ² National Taipei University of Technology, Taiwan
P-174	Employing only one optical sideband modulation technique in full-duplex radio-on-riber transport systems A.S.Patra¹, Hai-Han Lu² and Yu-Chao Hsiao² ¹ Haldia Institute of Technology, Haldia, India ² National Taipei University of Technology, Taiwan
P-175	A new family of 3-D optical orthogonal codes for optical CDMA systems with differential detection Jaswinder Singh and Maninder Lal Singh[#] [*] Beant College of Engg. & Technology, Gurdaspur [#] Guru Nanak Dev University, Amritsar-143005
P-176	A neural network model for shape recognition under rotational distortion Mausumi Pohit Amity University, UP, Sector 125, Noida 201301
P-177	Interaction of optical solitons in an erbium doped fiber system M.S. Mani rajan^a and A. Mahalingam^b ^a Rajalakshmi Institute of Technology, Chennai 602107 ^b Anna University, Chennai 600025.
P-178	Enhanced speed of bacteriorhodopsin based photonic switch Parag Sharma¹ and Vrijendra Singh² ¹ National Physical Laboratory, Dr. K. S. Krishnan Road, New Delhi-110012 ² Indian Institute of Information Technology, Allahabad
P-179	Performance evaluation and security aspect issues of optical CDMA networks Sanjay Saini Govt. Polytechnic College, Alwar

P-180	Catastrophic damage of Optical fiber induced by 30 dBm pump light at 1480nm wavelength under extreme bend condition Hrudaya Ranjan Sahu and Ashutosh Goel <i>E1/E2/E3 Sterlite Technologies Ltd. Aurangabad</i>
P-181	Leo to geo intersatellite optical link for data relay applications P.K. Pandey, P.S. Bharadhwaj, V.K. Jain, R.V. Singh and V.K. Garg Space Applications Centre (ISRO), Ahmedabad
P-182	Nonlinear optical characteristics of biebrich scarlet doped PVA solid films P.G Louie Frobel¹, R.Sreeja², C.I Muneera^{1*} and M.K Jayaraj² ¹ University of Kerala, Kariavattom, Thiruvananthapuram ² Optoelectronic Devices Laboratory, CUSAT, Cochin 22, Kerala
P-183	A new approach of using the squeezed state formation of light for conducting noise free XOR logic operation. Shyamal Kumar Pal* and Sourangshu Mukhopadhyay The University of Burdwan, Golapbag-713104 (WB)
P-184	An analytical approach to realize remote controlled all optical nand logic using HOSP Puspendu Kuila and Sourangshu Mukhopadhyay V. S. Mahavidyalaya, Manikpara, Midnapore (W), (WB)
P-185	Modeling of a digitally tunable optical filter system designed for wavelength selective switching based optical network Anirudh Banerjee Amity School of Engineering and Technology, Amity University, Lucknow-226010, U.P.
P-186	Statistical analysis of components for wave-length division multiplexed optical fiber communication Inderpreet Kaur and Neena Gupta* R.B.I.E.B.T, Sahuran (Pb.) *ECE Department, PEC, Chandigarh
P-187	A method of developing an all optical frequency encoded S-R flip-flop with tri-state logic Ashish Pal and Sourangshu Mukhopadhyay The University of Burdwan, Golapbag, West Bengal-713104
P-188	Coherent orthogonal wavelength division multiplexing for optical networks Irfan A. Khan and C.M. Negi SGSITS, 23, Park Road, Indore-452 003, M.P.
P-189	Generation of transmission gratings in silver halide emulsion and investigation of their structures Sanjiva Kumar, Nisha Prasad, R. B. Tokas and N.K. Sahoo Bhabha Atomic Research Centre, Trombay, Mumbai 400 085
P-190	Design aspects of projectile velocity measurement system R.C.Kalonia,* R Bhatnagar,* PP Bajpai,* Manjit Singh# and M.S.Yadav@ * Central Scientific Instruments Organisation (CSIO), Chandigarh (India) -160 030 # Terminal Ballistics Research Laboratory (TBRL), Chandigarh (India) – 160 030 @ Physics Department, Kurukshetra University, Kurukshetra (India) – 136 119
P-191	Design consideration of multiple laser based high speed digital camera system to study terminal effects of projectiles R.C.Kalonia,* R Bhatnagar,* PP Bajpai,* Manjit Singh# and M.S.Yadav@ * Central Scientific Instruments Organisation (CSIO), Chandigarh (India) -160 030 # Terminal Ballistics Research Laboratory (TBRL), Chandigarh (India) – 160 030 @ Physics Department, Kurukshetra University, Kurukshetra (India) – 136 119
P-192	Optical limiting studies in BSO nanocrystals dispersed in solution and a polymer matrix D. Narayana Rao, B. M. Krishna, H. Sekhar, K. Shadak Alee, P. Premkiran* and S. Venugopal Rao* School of Physics, University of Hyderabad, Hyderabad - 500 046, India *ACRHEM, University of Hyderabad, Hyderabad – 500 046, India
P-193	Estimation of thermal dissipation of an opto-electronic display for a noiseless and cost effective thermal management Vinod Karar, Surender Singh, Harry Garg, P P Bajpai and Garima Saini* Central Scientific instruments Organisation, Chandigarh *NITTTR, Chandigarh
P-194	Non invasive blood glucose measurement using optical method: feasibility study and design issues Jaspreet Kaur*, Jagdish Kumar, H K Sardana, R Bhatnagar and N S Mehla Central Scientific Instruments Organization, Chandigarh
P-195	Tandem organic light-emitting devices using C60 and pentacene as a pure organic connecting layer M. V. Madhava Rao*, Tsung-Syun Huang, Yan- Kuin Su, Yen-Tang Huang, Chun-Yuan Huang National Cheng Kung University, Tainan 701, Taiwan, ROC