

Prof. Ashish Verma

Curriculum Vitae

Designation: Professor

Date of birth: 23/03/1963

Date of holding presentation post: 25/05/2013

Name of Department and School: Physics, Mathematical and Physical Sciences.

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Additional responsibility in the University: 1. Dean, School of Mathematical and Physical Sciences,
2. Director in-charge, Institute of Engineering and Tech.
3. Head, Department of Computer Science and App.

Educational Qualifications: B.Sc.(PCM), M.Sc.(Physics), Ph.D.(in Luminescence)

Certificate Course in COVID-19 Contact Tracing from Johns Hopkins University, Baltimore, Maryland(2020)



Research Area/Specialization

- Luminescence Study Embedded System and VLSI Designs.
- Digital Electronics, Electronic Devices, Sensors, Microprocessors (8, 16, 32 bits), VLSI Design.

Awards/ Honors / Fellowship Conferred (With details thereof)

- Bharat Ratna Radha Ballabh Gold Medal award 2022
- Research Excellence Award 2022, from Institute of Scholar
- Scholarship from B.P.R & D, Delhi
- INSC Research Excellence Award, 2022
- Human Rights Icon Award 2022

Patents

No. of Patents Filed/Published (with title and other details):

- Title: **A system for IoT connected devices for data migration and synchronization**
Author: Dr. Ashish Verma, Ms. Sherry Nasir; et.al;
Field: Engineering and Technology
Date of filing: 10-07-2022
Date of publication: 22-07-2022
- Title: **An AI based system for providing adaptive services for an IoT environment**
Author: Dr. Ashish Verma, Ms. Sherry Nasir; et.al;
Field: Engineering and Technology
Date of filing: 30-07-2022
Date of publication: 07-08-2022
- Title: **A UREA FUEL COMBUSTION METHOD FOR SYNTHESIS OF EUROPIUM DOPED CaAl₄O₇ HOST MATERIAL**
Author: Mr. Praveen Kumar Litoriya, Dr. Ashish Verma, Ms. Swati Kurmi; et.al;
Field: Physics and Material Science
Date of filing: 25-07-2022
Date of publication: 12-08-2022

Research Projects (Completed and Ongoing)

- Design & Development of Black Box for Railway Engine, UGC- 3 years- 33-91/2007(SR)- 7,38,800/--completed
- Design & Development of an Embedded System for controlling a Robotics for sewer inspection.- MPCST, Bhopal- 1 year- R&D/Phy, 23/08-09- 4,59,500/--Completed

Ph. D. Awarded

- 2019-**OPTICAL AND STRUCTURAL STUDIES OF ZINC ALUMINATE BASED PHOSPHOR ACTIVATED WITH RARE EARTH METALS**, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Sanjay Kumar Pathak.
- 2019-**LUMINESCENCE STUDIES OF ALUMINATE BASED PHOSPHORS ACTIVATED WITH RARE EARTH METALS**, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Aksh Kumar Verma
- 2013-**ELECTRONIC SPECTRAL INVESTIGATIONS OF SOME RARE EARTH ACTIVATED BORAX GLASSES**, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Swati Mishra
- 2012-**SOME NEW METHODOLOGIES FOR TESTING EMBEDDED SYSTEM**, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Neelesh Jain
- 2012-**ANALYSIS AND DESIGN OF UNIVERSITY EDUCATIONAL FRAME WORK & DATABASE TOWARDS E-GOVERNANCE**, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Uday Shrivastava

- 2012-DESIGN & DEVELOPMENT OF SOME CONTROL SYSTEMS USING FUZZY LOGIC TECHNIQUES, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Abhishek Kumar Dwivedi
- 2012-DESIGN & DEVELOPMENT OF AN EMBEDDED SYSTEM FOR CONTROLLING THE ROBOTIC EQUIPMENT FOR SEWER BLOCKAGE DETECTION, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Ajay Kumar Shrivastava
- 2011-LUMINESCENCE OF MAGNESIUM ALUMINATE, Bhoj University, Bhopal, J. Bhargava
- 2011-STUDY AND ANALYSIS AND MODELING OF LOW-POWER, HIGH SPEED OPTIMIZED CMOS DIGITAL LOGIC AND MEMORY BASED VLSI SYSTEM ON CHIP CIRCUITS, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Fazal Noorbhasha
- 2011-SPECTRAL INVESTIGATION OF SOME RARE EARTH ACTIVATED BOREX GLASSES, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Rajendra
- **2010-DESIGN & DEVELOPMENT OF AN EMBEDDED SYSTEM FOR MULTI-MONITORING MEDICAL SYSTEM, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Shalini Jain**
- **2009-DESIGN & DEVELOPMENT OF BLACK BOX FOR RAILWAY ENGINE, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Alka Dubey**
- **2008-MICROCONTROLLER BASED SAFETY SYSTEM FOR RAILWAYS, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Ranjana Bohre**
- **2007-LUMINESCENCE AND SPECTRAL STUDIES OF SOME RARE EARTH BORAX GLASSES, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Sujeet Jain**
- **2007-DESIGN & DEVELOPMENT OF CONTROL SYSTEM USING 16-BIT MICROPROCESSOR, A BLOOD TRANSFUSION SYSTEM N, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Rama Shankar Verma**
- **2004-ELECTRONIC SPECTRAL INVESTIGATION OF PRASEODYMIUM AND NEODYMIUM IN SOME ORGANIC AND INORGANIC COMPOUND, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Saurabh Badonia**

Publications

- **1993-Ashish Verma**, S.Sivaraman, R.K.Pandey, Shishir Jain and R.V.Shubramanyam, Madhya Bharti, Application of Thermoluminescence in forensic investigation, 32A36B,(1993) 39-43
- 1994-Shishir Jain, **Ashish Verma**, R.K.Pandey & S.Sivaraman, Madhya Bharti, Decay and Thermoluminescence studies of Gd and Tb activate of CaSiO₃ phosphor, 34A36B partII section A&B,(1994) 1-6
- **1994-Ashish Verma**, S.Sivaraman, R.K.Pandey and Shishir Jain, Madhya Bharti, Temperature Dependence of luminescence emission from Eu,Nd,Sm doped CaO phosphor under X-ray excitation, 34APartII, (1994)13-16
- 1995-P.K.Khare, **Ashish Verma**, P.L.Jain and R.K.Pandey, Dielectric Behaviour of solution grown pure and ferrocen mixed ethyl cellulose film, MadhyaBharti, 44(1995)1-12
- **1995 -Ashish Verma** & R.A.Singh, Shift of Electronic Spectra of substituted Naphthalenes, Madhya Bharti, 35A39BpartII,(1995) 41-49
- **1995-Ashish Verma**, Characteristics and Operation of TTL integrated circuit, Proceedings of National seminar at Balaghat, (1995) 35-37
- **1996-R.V.Shubramanyam**, Shishir Jain, **Ashish Verma** & S.Sivaraman, Energy Transfer in CaSiO₃ phosphor doped with Ce³⁺ and Tb³⁺. Praman, 47No.6(1996) 471-479
- **1998-P.K.Khare**, J.K.Upadhyay, **Ashish Verma** and Sunil Paliwal, Space Charge limited current in cellulose acetate films, J.Polymer Material, 15,(1998) 289-297
- **1998-P.K.Khare**, **Ashish Verma** and Sunil Paliwal, Stimulated current and Electrical conduction in Metal(1)-ethyl cellulose-metal(1)/(2) system, Bull. Mater.Sci., 21No3,(1998) 207-212
- **1998-Ashish Verma** et. al., Electrical conduction mechanism in solution grown doped polyvinyl, Dyrrolidone film, Bull. Mater.Sci., 21,(1998) 139-147
- **1998-P.K.Khare**, J.K.Upadhyay, **Ashish Verma** and Sunil Paliwal, Electrical conduction behavior of Diphenylthiocarbazone doped cellulose acetate, Plymer International, 47,(1998), 145-151
- **1999- J.K.Upadhyay**, P.K.Khare and **Ashish Verma**, Thermally Stimulated discharge current in cellulose film, Indian J. of Physics, 73A(2), (1999) 183-194
- **1999- J.K.Upadhyay**, P.K.Khare and **Ashish Verma**, Thermally Stimulated discharge current in cellulose film, Indian J. of Physics, 73A(2), (1999) 183-194
- **2006-Alka Dubey** and **Ashish Verma**, Black Box for Railway Electric Engine, Proceedings of the 22nd National Convection of Electronics and Telecommunication Engineers,(2006) 1-5
- **2007-Alka Dubey** and **Ashish Verma**, Design & Development of Black Box for Railway Electric Engine WAP7, Proceedings of M.P.Science Congress, (2007) 40-49
- **2007-R.S.Verma** and **Ashish Verma**, Study the theoretical aspects of 16bits microprocessor controller blood Transfusion Syatem, Advances in Electronic Material and Devices, (2007) 191-195
- **2007-R.S.Verma** and **Ashish Verma**, Design & Development of microprocessor based two way stepper motor, Madhya BHarti, 52, (2007), 38-45
- **2007-Alka Dubey**, **Ashish Verma** and Ranjana Bohre, A microcontroller based system to reduce the sound pollution prodused by automobiles in urban areas, Research Hunt, Volume II issue V, (2007) 20-23
- **2007-Ranjana Bohre**, **Ashish Verma** and Alka Dubey, Receiving and Transmitting system using USART in railway electric engine aWAP7, Research Hunt, Volume II issue V, (2007) 17-19
- **2008-Alka Dubey** and **Ashish Verma**, Smart vibration sensor with wireless communication for recording & analyzing train vibration, Proceedings of the 4th International conference on wireless communication and sensor network, Vol.1 II issue, (2008) 126-128
- **2008-Fazal Noorbhasha**, **Ashish Verma** and Alka Dubey, Arithmetic and Logic operation control(ALOC) system-on-chip(SoC) device for Microprocessor, Research Hunt, 3(vi), (2008), 1-6

- **2008 -Rajendra, Ashish Verma**, Swati Mishra and Shishir Jain Trap depth evaluation of Nd, Eu and Sm doped CaO phosphor, J. of Current Science, 12(2), (2008), 445 -453
- **2008-Rajendra, Ashish Verma**, Swati Mishra and Shishir Jain, Study the effect of Eu, Nd and Sm activators on glow curve of CaO phosphor, J. of Current Science, 12(2), (2008), 454 -459
- **2008-S.P.Singh, Ashish Verma** and Ajay Kumar Shrivastava, Design and Development of Robotic sewer inspection equipment controlled by embedded system, IEEE Volume 978-7695-3267-7/08, (2008) 1317-1320
- **2008-Ajay Kumar Shrivastava, Ashish Verma** and S.P.Singh, Partial Automation of the current sewer cleaning system, J. Science & Technology, 1(4), (2008), 261-265
- **2009-Shalini Jain and Ashish Verma**, A low cost pulse rate measurement circuit along with the blood pressure indicator, Sci-Front, III(3), (2009), 141-142
- **2009-Sujeet Jain, Ashish Verma** and Ragni Singh, Study of spectroscopic properties of Er(III) doped in Borex Glasses, Indian Research Communication, 3(1), (2009), 93-94
- **2009-Alka Dubey and Ashish Verma**, Design and Development of a wireless sensor network for transferring the data from electric engine to passing railway station for vigilance purpose, Global Sci-Tech, 1(3), (2009), 188-190
- **2009-Ashish Verma** and Alka Dubey, A low cost Microcontroller based data acquisition system for growth, decay and thermoluminescence in luminescence studies, Global Sci-Tech, Al-Falah's J. Science & Technology, 1(14), (2009) 256-259
- **2009-Fazal Noorbhasha and Ashish Verma**, A VLSI SoC layout process for static combinational logic circuits in 90nm technology, Madhya Bharti, 55, (2009) 92-99
- **2009-Fazal Noorbhasha and Ashish Verma**, ASIC Hardware Implementation of Dual Mode Traffic light control, E-Journal of Science and Technology, Athence, (2009) 109-115
- **2009-Ranjana Bohre and Ashish Verma**, Robotics manipulator for turning the break lever of electric engine, Global Sci-Tech., 1(3), (2009) 177-179
- **2009-Ajay Shrivastava, Ashish Verma** and S.P.Singh, Effect of vibration of separation between the Ultrasonic transmitter and receiver on the accuracy of the distance measurement, International J. Computer Science and Information Technology, 1(2), (2009) 19-29
- **2010-Alka Dubey and Ashish Verma**, A low cost microcontroller based engine status monitoring system, E-Journal of Science and Technology, Athence, 4(5), (2010) 37-42
- **2010-Alka Dubey and Ashish Verma**, Design and Development of Black Box for analyzing accidents in railways, Sensors and Transducers, 114(3), (2010) 151-160
- **2010-Alka Dubey and Ashish Verma**, Design and Development of an automatic level crossing monitoring system using wireless sensor network in WCR zone, Sensors and Transducers, 111(78), (2010) 151-160
- **2010-Uday Shrivastava, Ashish Verma** and R.S.Kasana, An Approach for E-Government project assessment, International J.E-Governance, vii, (2010) 33-38
- **2010-Ranjana Bohre, Ashish Verma**, Alka Dubey, R.S.Verma, Shalini Jain and Fazal Noorbhasha, Communication between microcontroller to microcontroller control application, J.Current Science, 15(1), (2010) 271-276
- **2010-Sujeet Jain and Ashish Verma**, Spectral Investigation of Ho(III) doped borax glasses, Journal of Physics, III, (2010) 37-42
- **2010-Ranjana Bohre, Ashish Verma**, Alka Dubey, R.S.Verma, Shalini Jain and Fazal Noorbhasha, Topology and Matrix for multiprocessor system Robotics, J.Current Science, 15(1), (2010) 77-80
- **2010-Ashish Verma**, Alka Dubey, Shalini Jain, Ajay Shrivastava, S.P.Singh and Manish Kshetrapal, A microcontroller based leakage current detection and its control system, Global Sci-Tech., 2(3), (2010) 186-192
- **2010-Fazal Noorbhasha and Ashish Verma** and Abdul Kareem P., An Embedded system implementation for an 8-bit AL processor control, Proceedings of the International conference on Aerospace Electronics, Communication and Instrumentation, (2010) 186-190
- **2010-Fazal Noorbhasha, Ashish Verma** and A.M.Mahajan, Study the analysis of low power and high speed CMOS logic circuit in 90nm technology, E-Journal of Science and Technology, Athence, (2010) 43-50
- **2010-Alka Dubey and Ashish Verma**, Black Box for Railway Electric engine recording temperature and voice recording unit, Global Sci-Tech., 2(2), (2010) 63-68
- **2010-Alka Dubey and Ashish Verma**, Automatic level crossing monitoring using WSN in WCR zone, 2nd International conference on RF and Signal processing system, (2010) 304-308
- **2010-Ajay Kumar Shrivastava, Ashish Verma** and S.P.Singh, Distance measurement of an object or obstacle by ultrasonic sensor using P89C51RD2, International J. Computer Science, 2(1), (2010) 64-68
- **2010-Alka Dubey and Ashish Verma**, Concept of Black Box for Railway electric engine in Indian Perspective, Global Sci-Tech., 2(1), (2010) 55-61
- **2010-Uday Shrivastava, Ashish Verma** and R.S.Kasana, Architecture and frame work of e-literacy: Major role player of E-Education, International J. Electronic Government Research, (2010), 21-25
- **2011-S Swati Mishra, Ashish Verma** and Rajendra, Spectral Investigation of Pr(III) doped borex glasses, The IUP Journal of Physics, IV(1), (2011) 7-13
- **2011-Neelesh Jain, Ashish Verma** and Shalini Jain, The Psychology of testing embedded system. Proceedings of the International conference on recent trends in Engineering, Technology and Management, (2011) 306-310
- **2011-Abhishek Dwivedi and Ashish Verma**, Fuzzy Logic Controller for variable speed drive, National Conference on Emerging interface of physics and Technology, (2011) 195-198
- **2011-Neelesh Jain, R.S.Verma, Ashish Verma** and Shalini Jain, Testing Embedded software in microcontroller based Blood Transfusion System, Conference on wireless network and embedded system, (2011) 85-87
- **2011-Shalini Jain, Neelesh Jain, R.S.Verma, and Ashish Verma**, Testing Embedded system in microcontroller based ECG recording system, Conference on wireless network and embedded system, (2011), 18-21
- **2011-Neelesh Jain and Ashish Verma**, Embedded System, Madhya Bharti, 56, (2011) 105-114

- **2011-Swati Mishra, Ashish Verma and Rajendra, Spectral Investigation of Pr(III) doped Borax Glasses, IUP Journal of Physics, IV(1), 2011,7-15**
- **2012-Neelesh Jain and Ashish Verma, Testing Fault in embedded system application, Ultra Science, 24(1)B, (2012) 41-48**
- **2012-Neelesh Jain, Ashish Verma, R.S.Verma and Prashant Tiwari, Going Social: The Impact of social networking in promoting education, International J.Computer Science, 9(3)No.1. (2012) 483-485**
- **2012-Neelesh Jain, Ashish Verma and Shalini Jain, Multilevel Test method for testing Microcontroller based ECG system, International J. Computer Application, 46(9)issue-3, (2012), 31-35**
- **2013-Neelesh Jain,B.P.Agnohotri and Ashish Verma, Impact Assessment of E-Governance in India, International J. Engineering and Management Research, Volume-3,Issue-6, December-2013, ISSN No. : 2250-0758**
- **2013-Swati Mishra and Ashish Verma, Indian J. Physics and Application, Spectroscopy and Luminescence studies of Nd(III) and Sm(III) activated borax Glasses, Volume 1, Number2(2013) , pp 115-124, ISSN No. 2347-3991**
- **2014-Neelesh Jain and Ashish Verma, Essentials of testing Embedded system, International Conference on Interdisciplinary research in Engineering, Management and Pharmacy, (2014)**
- **2016-A.K.Saraf and Ashish Verma, Power Spectral density of FSK modulation in complex binary system, Madhya Bharti, 2016, Vol.60(1), 59-61, ISSN No. 0972-7434**
- **2017-Harshel Jain and Ashish Verma, Study of the propagation delay and rise, fall time of Gate based static CMOS based circuit design, International J. Research in Electronics and computer Engineering, Vol.5, Issue 2, Apr-June 2017 (<http://www.i2or-ijrece.com/vol.-5-issue-2.html>)**
- **2017-Akshkumar Verma, Ashish Verma et al., Mechano-luminescence studies of nano $\text{ZnMgAl}_{10}\text{O}_{17}:\text{Eu}$ phosphor under UV irradiation, 2nd International Conference on Condensed Matter and Applied Physics, 2017, AIP Publishing, 978-0-7354-1648-2, 030037-1 to 030037-4 (<http://doi.org/10.1063/1.5032372>)**
- **2018-1. Akshkumar Verma, Sanjay kumar Pathak, Ashish Verma, G.V.Bramhe and Ishwar Pd. Sahu, Tuning of luminescent properties of $\text{Zn}_{1-x}\text{MgAl}_{10}\text{O}_{17}:\text{Eu}_x$ nano phosphor, J. Alloys and Compounds, 764(2018) 1021-1032 (doi.org/10.1016/j.jallcom.2018.06.023)**
- **2. Akshkumar Verma, Ashish Verma ,G.V.Bramhe and Ishwar Prasad Sahu, Optical studies of the $\text{Ba}_{1-x}\text{MgAl}_{10}\text{O}_{17}:\text{Eu}_x$ phosphor synthesis by combustion route, J. Alloys and Compounds, 769(2018) 831-842 (doi.org/10.1016/j.jallcom.2018.07.371)**
- **2019-1.Akshkumar Verma and Ashish Verma,Synthesis, characterization, mechanoluminescence, thermoluminescence and antibacterial properties of $\text{SrMgAl}_{10}\text{O}_{17}:\text{Eu}$ phosphor, J. Alloys and Compounds, 802(2019) 394-408 (doi.org/10.1016/j.jallcom.2019.06.209)**
- **2. Akshkumar Verma, Ashish Verma and G.V.Bramhe, Shifting and enhancement photoluminescence performance of the $\text{Sr}_{1-x}\text{Eu}_x\text{MgAl}_{10}\text{O}_{17}$ phosphor, J. Alloys and Compounds, 774(2019) 1168-1080 (doi.org/10.1016/j.jallcom.2018.09.166)**
- **2020-Sanjay Kumar Pathak, Akshkumar Verma, Ashish Verma, Structural and photoluminescence properties of Eu^{3+} activated ZnAl_2O_4 orange-red phosphor, J. Material Science: Materials in Electronics (2020) 0957-4522 (doi.org/10.1007/s10854-020-03715-x)**
- **2020-Arun kumar Singh, Ashish Verma et al, Comparative study of normally and heat treatedprepared GOand its super capacitance performance, 3rd International Conference on Condensed Matter and Applied Physics (2020)(<https://doi.org/10.1063/5.0001119>)**
- **2020-Niharika Chourasiya, AK Singh, AKVerma, Ashish Verma, Structural and thermal properties of Ni doped MoS_2 synthesized via one step hydrothermal method, AIP proceedingd, 2020, (<https://doi.org/10.1063/5.0019634>)**
- **2020-Sanjay Pathak, AKVerma, Ashish Verma, Adjusting thermo-luminescence properties of ZnAl_2O_4 : Eu, Dy phosphor by urea fuel combustion synthesis, AIP proceedings, 2020, (<https://doi.org/10.1063/5.0001127>)**
- **2021-Arun Kumar Singh,Anubha Sodhiya, Ashish Verma, The effect of Synthesis temperature on the structural and electrochemical properties of S and N doped rGO electrodes, J. Fullerenes, Nanotubes and Carbon Nanostructures,(2021),1536-4046 (<https://doi.org/10.1080/1536383X.2021.1966418>)**
- **2021-P.K.Mishra, V. Shrothiya, S.P. Mishra, S.K. Pathak, Ashish Verma et.al,Syntheses and Thermoluminescence properties of LiMgBO_3 ,J. Oxidation Communications 44 No. 2(2021) 377-378 (ISSN 02094541, h index 22) (<https://scibulcom.net/en/article/612MMRA6vXP9ze8FrtL>)**
- **2021-Sherry Nasir and Ashish Verma, Designing of WSN based Embedded System using Wearable Sports Sensors: A theoretical Approach, J. Multidisciplinary Engineering Science and Technology, Vol. 8, Issue 2(2021) 2458-9403(<http://dx.doi.org/10.13140/RG.2.2.21506.61122>)**
- **2021-Sherry Nasir and Ashish Verma, Designing an Embedded System for Analysis of X-Ray results for Covid-19 Patients as X-Rays Computed Tomography Device for Lungs Diagnosis,International J. Multidisciplinary Educational Research, Volume 10, Issue 4(3)(2021) 2277-7881 ([http://ijmer.in/issues/volume10/volume10-issue4\(3\).aspx](http://ijmer.in/issues/volume10/volume10-issue4(3).aspx))**
- **2021-Sherry Nasir and Ashish Verma, Designing a cost effective embedded system using internet of things Technology for monitoring health issues in rural areas in Indian perspective: A Theoretical Approach; Vidyabharati International interdisciplinary research journal (special issue) ISSN 2319-4979 (<http://www.viirj.org/specialissues/2021/SP2113/SP2113.html>)**
- **2021-Swati Kurmi, Praveen Litoriya, Ashish Verma, synthesis and optical characterization of Dysprosium doped strontium Calcium Aluminates based nanophosphor for yellow lighting application, Vidyabharati International interdisciplinary research journal (special issue) ISSN 2319-4979, (<http://www.viirj.org/specialissues/2021/SP2110/SP2110.html>)**
- **2022-1.Akshkumar Verma and Ashish Verma,Investigstion of Structural, Luminescence and Antibacterial properties of $\text{Zn}_{1-x}\text{Eu}_x\text{Al}_2\text{O}_7$ Phosphor, J. Mater Sci: Mater Electron, (2022)(<https://doi.org/10.1007/s10854-022-08486-1>)**
- **2. Praveen kumar Litoriya,Swati Kurmi and Ashish Verma, Structural, Optical, Morphological and Photoluminescence properties of $\text{SrAl}_2\text{O}_4:\text{Dy}$ by using urea fule combustion method, Material Today: Proceedings, (2022) (<http://doi.org/10.1016/j.matpr.2022.05.487>)**
- **2022-Swati Kurmi . Praveen kumar Litoriya and Ashish Verma , A Comparative Analysis on Structural and Photoluminescence Properties of Dysprosium, Neodymium and Europium doped Strontium Aluminates Nanophosphor, Indian Journal of Natural Sciences, 12 issue70(2022) 38447-38452 (www.insroindia.org.in)**
- **2022-Swati Kurmi . Praveen kumar Litoriya and Ashish Verma, Structural Interpretation and Photoluminescence Proprties of $\text{Sr}_{0.90-x}\text{Ca}_{0.10}\text{Al}_{12}\text{O}_{19}:\text{Dy}^{3+}_x$ nanophosphor synthesis by combustion method, Indian J. of Science & Technology,(2022)(<http://doi.org/10.17485/IJST/v15i15.2115>)**

- **2022**-Arun Kumar Singh, Anubha Sodhiya, Niharika Chourasiya, Shwetabar Patel, Ashish Verma; Graphite to grapheme conversion via modified electrochemical exfoliation method; MRS Advances;(2022) (<https://doi.org/10.1007/s12666-019-01807-9>)
- **2022**-Swati Kurmi, Praveen Kumar Litoriya, Ashish Verma; Structural, morphological, and photoluminescence properties of red emitting nanophosphors $\text{Sr}_{0.85-x}\text{Ca}_{0.15}\text{Al}_{12}\text{O}_{19}:\text{Dy}^{2+}_x$; Materials Today: Proceedings (2022) (<https://doi.org/10.1016/j.matpr.2022.05.420>)
- **2022**-Praveen Kumar Litoriya, Swati Kurmi, Ashish Verma; Structural, optical, morphological and photoluminescence properties of $\text{SrAl}_2\text{O}_4:\text{Dy}$ by using urea fuel combustion method; Materials Today: Proceedings (2022) <https://doi.org/10.1016/j.matpr.2022.05.487>
- **2022**-Sherry Nasir and **Ashish Verma**, Role of Embedded system for X-ray comparison of lungs to detect a COVID-19 affected person at the entry point of Aerodromes, Railway station and Metro station in perspective of India, SAMIRIDDHI, Vol.10, Issue 4(3), (2022) (<http://10.18090/samiriddhi.v14i01.17/>)

Book published – 01

- माइक्रोप्रासेसर, 8085,68000 तथा पेंटीयम के अंकगणित और लॉजिकल प्रचालन, **आशीष वर्मा**, 2002

Chapters in books-02

- तरंग भौतिकी और ध्वनिकी, **आशीष वर्मा** तथा आर एस कसाना, 2003

International Seminar/Conference/Workshops (Attended)

- **1995**-National Seminar Under Physics Department, Balaghat, M.P.[**Paper Presentation**]
- **2003**-National Science Day Celebration, Dr. Harisingh Gour V.V., Sagar, M.P. .[**Paper Presentation**]
- **2005**-National Conference on Emerging Technologies & Application, Computer Science Department of Saurashtra University, Rajkot.[**Paper Presentation**]
- **2005**-Second Madhya Pradesh Science Congress, Carrier College, Bhopal.[**Paper Presentation**]
- **2006**-Participated in Indian Science Congress at Acharya N.G. Ranga Agriculture University, Hyderabad
- **2006**-National Conference on Advances in Electronic Materials and Devices, Guru Ghasidas University, Bilaspur (C.G.) . [**Paper Presentation**]
- **2006**-National Seminar on Pollution and its effect on urban environment, Govt. Science and commerce college, Benazeer, Bhopal
- Sponsored by: UGC New Delhi & MPCST, Bhopal.[**Paper Presentation**]
- **2007**-Participated in National Seminar on Non-Conventional Renewable energy sources, Department of Physics & Electronics, Dr. Harisingh Gour V.V., Sagar
- **2007**-National Science Day Celebration, Emerging Areas in Science & Technology, Dr. Harisingh Gour V.V., Sagar . [**Paper Presentation**]
- **2008**-Fourth International Conference on Wireless Communication and Sensor Network, Indian Institute of Information Technology, Allahabad .[**Paper Presentation**]
- **2008**-National Symposium on Instrumentation, Andhra University College of Engineering, Andhra University, Visakhapatnam and Instrument Society of India, Indian Institute of Science, Bangalore.[**Paper Presentation**]
- **2008**-Participated in Regional Seminar on Intellectual Property & Innovation Management in Knowledge Era, MPCST, Bhopal and National Research Development corporation
- **2008**-National Science Day, Dr. Harisingh Gour V.V., Sagar . [**Paper Presentation**]
- **2009**-8th National Conference on Solid State Ionics: Materials for Novel Devices, Dr. Harisingh Gour V.V., Sagar . [**Paper Presentation**]
- **2010**-2nd International Conference on RF and Signal Processing System, KL University, Guntur, AP [**Paper Presentation**]
- **2010**-International Conference on Aerospace Electronics, Communication and Instrumentation, Vijayawada, AP [**Paper Presentation**]
- **2011**-International Conference on Recent trends in Engineering, Technology & Management, Bundelkhand Institute of Engineering & Technology, Jhansi, UP [**Paper Presentation**]
- **2011**-4th National Conference & ISTE State Chapter Annual Convention on Wireless communication & VLSI design. Gwalior Engineering College, Gwalior [**Paper Presentation**]
- **2011**-National Seminar on Component based software Engineering sponsored by AICTE, organized by Department of IT, UIT, RGPV Bhopal [**Paper Presentation**]
- **2012**-National Seminar on Science for shaping the future of India, Sponsored by The Indian Science Congress Association, Sagar Chapter, BTIRT Sagar [**Paper Presentation**]
- **2012**-National Seminar on Environment and Society, organized by Department of Sociology, Dr. Harisingh Gour V.V., Sagar .[**Paper Presentation**]
- **2012**-National Seminar on The role of Universities in lifelong learning, Department of Adult, Continuing Education and Extension, Dr. Harisingh Gour V.V., Sagar .[**Paper Presentation**]

- **2013-National Seminar on Implementation of the schemes of quality extension year in Higher Education of MP: Problem & Possibilities, Raja Bhoj Govt. College, Mandideep, Sponsored by Department of Higher Education, MP, Bhopal**
- **[Paper Presentation]**
- **2013-International Conference on Global Innovation in science and management, SVU, sagar, 27-28 Feb.2013[Paper Presentation]**
- **2014-International Conference on interdisciplinary research in Engineering, Management, Pharmacy and Science, SVU, sagar, 27-28 Feb.2014**
- **2015-International Conference on Recent trends in Science and Technology, SVU, sagar, 27-28 Feb.2015 [Paper Presentation]**
- **2016-International Conference on Challenges in Environmental Science and Technology, SVU, sagar, 27-28 Feb.2016**
- **[Paper Presentation]**
- **2016-National Conference on Industrial Electronics and Electrical Engineering, Swami Vivekanand University, Sagar**
- **[Paper Presentation]**
- **2017-National Conference on Energy for sustainable Development, Department of Physics, Dr. Harisingh Gour V.V., Sagar**
- **[Paper Presentation]**
- **2017- National Seminar on Global Innovative Engineering Techniques for sustainable development, Swami Vivekanand University, Sagar[Paper Presentation]**
- **2019-Participated in International Conference on Wallopog Globalization in Engg-Med-Eci-Agri-Pharm-Tech Research, SVU, sagar, 27-28 Feb.2019**
- **2020-Virtual Online National Conference 2020, LNCT, Bhopal [Paper Presentation]**
- **2020-Participated in AIP Conference Proceedings, 05 May 2020**
- **2020-Participated in National Webinar on Pandemic Time and Yoga, Swami Vivekanand University, Sagar**
- **2020-Participated in a webinar on Future of AI hosted by IETE, Mumbai 20th May 2020**
- **2020-Participated in a webinar on Development of deep learning architecture hosted by IETE, Mumbai 25th May 2020**
- **2020-Participated in a webinar on Conventional Bot Design hosted by IETE, Mumbai 30th May 2020**
- **2020-Participated in a webinar on software development life cycle-current industry practices hosted by LNCT, Bhopal, 30th May 2020**
- **2020-Participated in a webinar on Advances in Biomass Energy Technology hosted by Poornima College of Engineering, Jaipur, 30th May 2020**
- **2020-Participated in a webinar on Digital Marketing, Sagar Institute of Research Technology and science, Bhopal, 03/06/2020**
- **2020-Participated in a webinar on Accreditation & Outcome based educationfor NBA/NAAC, Sagar Institute of Research Technology and science, Bhopal, 08/06/2020**
- **2020-Participated in a webinar on Android Programming Developement, Sagar Institute of Research Technology and science, Bhopal, 09/06/2020**
- **2020-Participated in a webinar on Application Design of Brain Computer Interface, ADAMAS UNIVERSITY, 13/06/2020**
- **2020-Participated in a webinar on Patenting Your Innovation, St. Peter's Engineering college,Hydrabad, 16/06/2020**
- **2020-Participated in a webinar on How to write a research paper to referred journal,Dhirajlal Gandhi College of Technology, Satem, 04/07/2020**
- **2020-Participated in a webinar on IIoT Industry 4.0, Shri Ramchandra college of Engineering, 25/07/2020**
- **2021-9th International Conference on Current Research Trends in Pharmacy, Engineering, Agriculture, Science, Technology and Management during Pandemic, Swami Vivekanand University, Sagar, 27/02/2021**
- **[Paper Presentation]**
- **2021-A one day International symposium on Research Cinclave on Industry 4.0, hosted by M.L.Dahanukar College of Commerce, Mumbai, 4th October 2021**
- **[Paper Presentation]**
- **2022-Participated in a online International Conference on Current Trends in Advanced Materials and their application for Societal Development, Department of Physics, Dr. Harisingh Gour V.V., Sagar**

National Seminar/Conference/Workshops/ Webinars (Organized)

- Organizing Secretary, National Symposium on Advances in Laser and Spectroscopy, 2009
- Convener, A webinar on Optimized Digital Logic circuit design and Testing By Dr. Fazal Noorbhasha, K L University, Guntur,A.P., 20/06/2020, Department of Physics, Dr. Harisingh Gour V.V., Sagar
- Convener, A webinar on [A] Emerging fields of Modern Electronics, By Prof. Rajkamal, DAVV, Indore [B] Role of MATLAB in Physics, Dr. Alka Dubey, Former Principal, AIST, Sagar, 30/6/2020, Department of Physics, Dr. Harisingh Gour V.V., Sagar
- Convener, A webinar on Nano-photonic Material and Devices, By Prof. Shobha Shukla. IIT, Bombay,18/7/2020, Deptt. of Physics, Dr. Harisingh Gour V.V., Sagar
- Convener, A webinar on Research Frontier of IoT By Prof. Ajay K. Shrivastava, 9/8/2020, Deptt. of Physics, Dr. Harisingh Gour V.V., Sagar
- Convener, A webinar on Luminescence and its future By Prof. Nameeta Bramhe, 20/06/2021, Deptt. of Physics, Dr. Harisingh Gour V.V., Sagar
- Convener, A webinar on Medical Physics and Nano-Medicine for Cancer Treatment by Dr. Abdul Parchur12/7/21, Deptt. of Physics, Dr. Harisingh Gour V.V., Sagar
- Convener, A webinar on Towards a smarter battery management system for electric vehicle applications by Dr. Anji Reddy Polu, BVRIT Hyderabad college of Engineering 12/02/2022, Deptt. of Physics, Dr. Harisingh Gour V.V., Sagar.
- Convener, A webinar on Metal oxide Nanomaterials for Sensing Applications, some experimental results. by Prof. N.K. Pandey, University of Lucknow, 28/02/2022, Deptt. of Physics, Dr. Harisingh Gour V.V., Sagar.

Workshop & Training Program attained:

- 2021-Two days workshop on MATLAB AND SIMULINK APPLICATION IN ENGINEERING, hosted by Department of Electricals and Electronics Engineering, Shri Shankaracharya Group of Institution, SSTC, Bhilai(CG) 19-20February 2021
- 2008-One day workshop of SCIENCE AWARENESS, Supported by MP council of science & Technology at Govt. Nodal College, Sagar, 27/02/2008
- 2011-Two Day Intensive Workshop on XILINX EMBEDDED DESIGN FLOW, Department of Electronics & Communication Engineering, K L University, Guntur [A.P.],03-04/12/2011
- 2012-Three days Short term training Program on EMBEDDED SYSTEM PROGRAMMING, School of Electronics, Devi Ahilya University, Indore, 24-26/02/2012
- 2014-one day workshop on Nuclear Magnetic Resonance Spectroscopy and its application in Physics, Chemistry and Biology, Department of physics, Dr. Harisingh Gour University, Sagar[M.P.] 16th Feb.2014
- 2020-. One Week International online knowledge development program on Challenges and Advancement in the design of IoT, Embedded and VLSI systems: A Researchers View hosted by Gudlavalleru Engineering College, AP, 8th-13th June 2020
- 2022-Workshop on Improving Scientific Research writing and Publication Skill, RKDF University, Bhopal, 16.04.2022

Memberships in various Bodies:

- Dean, School of Mathematical and Physical Sciences (2021- Present)
- Head, Department of Physics (2017-2020)
- Proctor of the university, Dr. Harisingh Gour V.V., Sagar,
- Chairman, council of wardens of the University, Dr. Harisingh Gour V.V., Sagar
- Chief Security Officer, Dr. Harisingh Gour V.V., Sagar,
- Assist. Director, Academic Staff College, Dr. Harisingh Gour V.V., Sagar,
- Member BOS in Physics & Electronics, Dr. Harisingh Gour V.V., Sagar
- Member BOS in Computer Science & Application, Dr. Harisingh Gour V.V., Sagar
- Member, University Sports Committee, Dr. Harisingh Gour V.V., Sagar
- Chairman, Sports UTD Sagar. Dr. Harisingh Gour V.V.,
- Chief coordinator, re-totaling ,Dr. Harisingh Gour V.V., Sagar
- Department of Computer Science & Application, Dr. Harisingh Gour V.V., Sagar,
- Director In-Charge, Institute of Engineering & Technology, Dr. Harisingh Gour V.V., Sagar
- Assistant Director, International Human Rights and Crime Control Council, under Govt. of India.
- Executive Member, Anti-corruption Foundation of India

Lecture delivered:

- In Academic Staff College Jabalpur[M.P.] :one
- In Nobel college, Sagar on Digital Electronics : one
- In Academic staff college, Sagar:four
- Adina Institute of technology, Sagar:Three
- SVN University, sagar:Three
- Sardar Patel University Balaghat,MP-7 JUNE 2021
- Sardar Patel University Balaghat,MP-4 DECEMBER 2021
- Govt. P.G.College, Damoh,MP-one, 25 AUGUST 2021
- Govt. P.G.College, Damoh,MP-one, 26 AUGUST 2021
- Govt. College Patharia Distt. Damoh,02/03/2022
- Govt. College Patharia Distt. Damoh,02/03/2022

Ph. D. Awarded:

- 2019-**OPTICAL AND STRUCTURAL STUDIES OF ZINC ALUMINATE BASED PHOSPHOR ACTIVATED WITH RARE EARTH METALS**, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Sanjay Kumar Pathak

- **2019-LUMINESCENCE STUDIES OF ALUMINATE BASED PHOSPHORS ACTIVATED WITH RARE EARTH METALS, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Aksh Kumar Verma**
- **2013-ELECTRONIC SPECTRAL INVESTIGATIONS OF SOME RARE EARTH ACTIVATED BORAX GLASSES, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Swati Mishra**
- **2012-SOME NEW METHODOLOGIES FOR TESTING EMBEDDED SYSTEM, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Neelesh Jain**
- **2012-ANALYSIS AND DESIGN OF UNIVERSITY EDUCATIONAL FRAME WORK & DATABASE TOWARDS E-GOVERNANCE, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Uday Shrivastava**
- **2012-DESIGN & DEVELOPMENT OF SOME CONTROL SYSTEMS USING FUZZY LOGIC TECHNIQUES, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Abhishek Kumar Dwivedi**
- **2012-DESIGN & DEVELOPMENT OF AN EMBEDDED SYSTEM FOR CONTROLLING THE ROBOTIC EQUIPMENT FOR SEWER BLOCKAGE DETECTION, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Ajay Kumar Shrivastava**
- **2011-LUMINESCENCE OF MAGNESIUM ALUMINATE, Bhoj University, Bhopal, J. Bhargava**
- **2011-STUDY AND ANALYSIS AND MODELING OF LOW-POWER, HIGH SPEED OPTIMIZED CMOS DIGITAL LOGIC AND MEMORY BASED VLSI SYSTEM ON CHIP CIRCUITS, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Fazal Noorbhasha**
- **2011-SPECTRAL INVESTIGATION OF SOME RARE EARTH ACTIVATED BOREX GLASSES, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Rajendra**
- **2010-DESIGN & DEVELOPMENT OF AN EMBEDDED SYSTEM FOR MULTI-MONITORING MEDICAL SYSTEM, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Shalini Jain**
- **2009-DESIGN & DEVELOPMENT OF BLACK BOX FOR RAILWAY ENGINE, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Alka Dubey**
- **2008-MICROCONTROLLER BASED SAFETY SYSTEM FOR RAILWAYS, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Ranjana Bohre**
- **2007-LUMINESCENCE AND SPECTRAL STUDIES OF SOME RARE EARTH BORAX GLASSES, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Sujeet Jain**
- **2007-DESIGN & DEVELOPMENT OF CONTROL SYSTEM USING 16-BIT MICROPROCESSOR, A BLOOD TRANSFUSION SYSTEM N, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Rama Shankar Verma**
- **2004-ELECTRONIC SPECTRAL INVESTIGATION OF PRASEODYMIUM AND NEODYMIUM IN SOME ORGANIC AND INORGANIC COMPOUND, Dr. Harisingh Gour Vishwavidyalaya, Sagar, Saurabh Badonia**

Membership in Committees:

- 2022 **Infrastructure for online learning under capital Assets-35**, as Chairman
- 2022 **Screening committee for guest lecturer**, as Dean SMPS
- 2022 **Compassionate Appointment Committee**, as Chairperson
- 2022 **Flying squad**, as member
- 2021 **Write Off Committee**, as Member
- 2020 **Library Committee**, as Member
- 2020 **Result Processing Committee**, as Coordinator & Scrutinizer
- 2020 **UFM Committee**, as HoD
- 2020 **Organization Committee {International Conference on Indigenous Knowledge & Prevalent Practices}**, as Member
- 2019 **School Board, School of Mathematical & Physical Sciences**, as Professor Member
- 2019 **School Board, School of Chemical Science and Technology**, as Member
- 2019 **Investigation Committee**, as Member
- 2019 **Games Committee**, as Member
- 2019 **Ad-hoc Games Committee**, as Member
- 2019 **Convocation 2019**, as Member
- 2019 **Scrutinizer for application of Associate Professor**, as Member
- 2019 **Monitoring Committee**, as Member
- 2019 **CCTV camera Committee**, as Member
- 2019 **Committee for Security Agency**, as Member
- 2017 **Committee for allocation Additional Budget**, as Member
- 2017 **Committee for Tender for Mark sheet**, as Member
- 2017 **Gour Jayanti 2017, Security Committee**, as Coordinator
- 2016 **Diamond Jubilee Celebration, Disciplinary and Security Committee**, as Member
- 2014 **Advisory Committee Academic Affairs**, as Member
- 2014 **Technical Committee**, as Member
- 2013 **Interview Committee**, as Member
- 2013 **Academic Council 2013**, as Assistant Professor Member
- 2013 **Sophisticated Instrumentation Centre Advisory Committee**, as Special Invitees

- 2013 **Rajyabhasha Committee**, as Member
- 2013 **Sophisticated Instrumentation Centre**, as Teacher In-Charge
- 2012 **Organizing Committee Central University Foundation Day**, as Member
- 2012 **Student Council Election 2012-13**, as Member
- 2012 **Advisory Committee Gour Jayanti 2012**, as Member
- 2012 **Ad-hoc Sport Committee**, as Member
- 2012 **convocation committee**, as Member
- 2012 **Dispose off committee for bamboo trees**, as Chairman
- 2012 **Technical and Commercial bid committee for security agency**, as In-charge security
- 2012 **Academic Staff College, Sagar University**, as Assistant Professor
- 2012 **Inspire Award , Science Exhibition , 2012**, as Subject Expert
- 2012 **Safety Officer**, as Safety Officer
- 2012 **In-charge Physical Education Department**, as In-charge
- 2011 **Student Council 2011-12**, as Member
- 2011 **Organization Committee Youth Festival 2011-12**, as Disciplinary Committee Member
- 2011 **Advisory Committee Gour Jayanti 2011**, as Member
- 2011 **Anti Ragging Committee for UTD**, as Member
- 2011 **Proctorial Board 2011**, as Member
- 2011 **Inspire Award, Science Exhibition , 2011**, as Subject Expert
- 2011 **In-charge Security**, as In-charge security
- 2010 **Board of Studies, Govt. Auto. PG Girls College, Sagar**, as Subject Expert
- 2010 **Departmental Disciplinary and Anti ragging Committee**, as Joint Proctor
- 2010 **Complaint Committee**, as Member
- 2010 **Inspire Award , Science Exhibition**, as Subject Expert
- 2010 **Proctorial Board**, as Joint Proctor
- 2009 **Admission Committee**, as Member
- 2009 **Committee of form testing of B.Ed. of colleges**, as Member
- 2009 **committee for complaint of students regarding result**, as Member
- 2009 **Disciplinary committee for Gour Jayanti**, as Member
- 2009 **Gour Award committee for Players**, as Member
- 2009 **Flying Squad for main examination**, as Member
- 2008 **Admission Committee**, as Member
- 2008 **Proctorial Board**, as Joint Proctor
- 2008 **Central Valuation**, as coordinator
- 2007 **Admission Committee**, as Member
- 2007 **Academic Staff College, Sagar University**, as Lecturer
- 2006 **Admission Committee**, as Member
- 2005 **Executive Council, Govt. Auto. PG Girls College, Sagar**, as Member
- 2004 **Admission Committee**, as Member



[Prof. ASHISH VERMA]

DEPARTMENT OF PHYSICS