

Dr Arun Kumar Sikarwar (HoD Department of Chemistry)

Designation	:	Professor
Qualification	:	M.Sc, Ph.D, PGDCA
Specialization	:	Physical Chemistry, QSAR and QSPR
Ph.D Title	:	Studies on spectra of graphs of a series of salicyl Hydro-oxamic Acids
Date of joining	:	11 th October 1993
Teaching Experience	:	UG-27 Years, PG-20 Years
Research Project	:	O2 Submitted
Supervisor/Co-Supervisor	:	06 Awarded & 03 Pursuing
Life Membership (Journals)	:	Indian Science Congress (Everyman's Science), JERAD

Research Profiles:

- **ORCID ID:** [Link]- [0009-0007-2259-5542](https://orcid.org/0009-0007-2259-5542)
- **Google Scholar Link-** [Dr.Arun Kumar Sikarwar - Google Scholar](#)

Research Paper Published

1. A Comparative QSAR Study using Wiener, Szeged and Molecular Connectivity Indices (Journal of Chemical Information & Computer Sciences) (A Journal of American Chemical Society) (40) (57-62), ISSN-0095-2338, 2000, UGC Care Group-II.
2. A QSPR Study on Salicylhydroxamic Acid Derivatives using Szeged Index (Sz) (Oxidation Communication), (24), (38-47), 2001
3. QSAR Modeling of Salicylhydroxamic Acid Derivatives using Balaban Index (J) (Oxidation Communication), (24) No. (1), (28-37), 2001
4. A Comparative modeling study of Glycine/NMDA antagonist inhibition. Study of substitution using Kier-Hall, E-state index. (Poster Presentation in International Seminar at NCL, Pune), Abstract page 31, 2007
5. Computational modeling of Substitution effect on Anti-HIV-1 non Nucleosides reverse transcriptase inhibitor. Quantitative Structure Activity Relationship Application of Kier-Hall Electro topological State (E-state) Index. (Poster Presentation in International Seminar at NCL, Pune), Abstract page 36, 2007

6. QSAR and QSPR Studies with principle Eigen value of distance matrix. (Material Science Research India), Vol. (4) (1), (153-156), 2007
7. 2-Dimension Quantitative Structure Activity Relationship Modeling study of Glycine/N-methyl-D-aspartate Antagonist Inhibition. Genetic Function Approximation Vis-à-vis Multiple Linear Regression Methods. (Acta.Chim.Slov+0.) (54) (797-804), ISSN-1318-0207, 2007, UGC Care Group-II.
8. Molecular modeling studies on 2-amino-6-arul-sulphonylbenzotrioles as non-nucleoside reverse transcriptase inhibitors of HIV-1, AQSAR approach. (Journal of Chemical Sciences) Vol. (119), No. (6), pp (625-630) November 2007, UGC Care Group-II.
9. Removal of heavy metals using Hybrid Precursor Prepared by agro residue (Rice Husk) (Journal of Environmental Research and Development) Vol. (1) No. (4), (357-364), April-June 2007
10. Correlation Studies of Topological India's for cephalosporin tube Antibiotic drug derivatives (Asian Journal of biochemical & Pharmaceutical Research issue 2 (vol.1) (443-451), 2011, ISSN-2231- 2560
11. Study of Sustainable environment Management is Special reference to plastic waste recycling by Modern technology, Research Hunt vol.(V), Issue (IV), pp (114-117), Dec. 2011, ISSN-0973-1628
12. QSAR Study of Phenol der with Schultz MTI (Asian Journal of biochemical & Pharmaceutical Research) issue 3 No. (1) (327-331), 2011, ISSN-2231-2560
13. Metabolic Potential of micro-organism in reference to Bio remedial plastic material in Sustainable Management (BLB-International Journal of Science & Technology) No. (1), vol.(2) pp(91-96), 2011, ISSN-0976-3074
14. Studies of Sustainable Environment Management in Special Reference to Plastic waste recycling by modern technology Research Hunt Issue (IV) vol.(5), pp(114-117), 2011, ISSN-0973-1628
15. A QSAR study of 2-amino acetic acid & its derivative with Randic connectivity & Balaban Pridex, (Asian Journal of biochemical & Pharmaceutical Research) issue 3(vol.2) pp(80-89), 2012, ISSN-2231-2560
16. QSAR & QSPR modeling with wiener index & Schultz molecular topological index (Asian Journal of biochemical & Pharmaceutical Research issue (2) vol.(2)pp (108-113), 2012, ISSN-2231-2560
17. QSAR & QSPR studies 1 H-1, 4-Benzodiazepines derivatives with Detour index and Randic connectivity index (Asian Journal of biochemical & Pharmaceutical Research) issue (3) vol.(2)(241-252), 2012, ISSN-2231-2560
18. QSAR & QSPR Modeling of Parachor and Molar Volume(Vm) for cephalosporin type drug derivatives containing B-Lactum type structure with the help of some

- Topological, Connectivity, Geometrical and 3D Indices, (Asian Journal of biochemical & Pharmaceutical Research) issue (4) vol.(2), 2012, ISSN-2231-2560
19. QSAR Modeling of Phenol Derivatives Using 3D Morse Descriptors and Eigen Values, (Journal of Environmental Research and Development), Vol.(6) No.(3A), Jan-Maarch-2012
 20. Studies on Environmental impact of Plastic Contaminated waste and Incidence with Special Reference to Bhopal City (M.P), Research Scopes issue (5) vol.(1), 2013,ISSN-2277-7792
 21. Synthesis, Spectral Analysis and in vitro biological evaluation of thiazolidinone derivatives of 5-nitrodazole (Journal of Chemical and Pharmaceutical Research,5(1) (254-260), 2013, ISSN-0975-7384
 22. QSAR Studies of Oseltamivir Derivatives with Schultz Molecular Topological Index, (Asian journal of Biochemical and Pharmaceutical Research) issue1, vol. (3) 2013, ISSN-2231-2560
 23. Photo Degradation of LDPE Films Approach with Tensile Properties. Asian Journal of Biochemical and Pharmaceutical Research, issue-3, vol. (3) 2013, ISSN-2231-2560
 24. Breaking Strength Studies of Weather Irradiated LDPE Films, IJFAR ISSN-2320-7973, Issue-7, Vol-1, 2013, pp (23-31)
 25. Photo degradation effect on food packaging LDPE films: an approach with DSC, IJFAR ISSN-2320-7973, Issue-1, Vol-2, 2014, pp (36-40)
 26. Study of Photo Degradation effect on Black agriculture Films using DSC methods". IJFAR, ISSN No- 2320-7973, Vol-2, Issue-6, 2014, (49-53).
 27. Photo Degradation of LDPE Films: An Approach with Carbonyl Index. IJFAR, ISSN No- 2320-7973, Vol-1, Issue-6, 2013, (25-29).
 28. Study of Photo Degradation Effect on Food Packaging LDPE Films an Approach with DSC, IJFAR ISSN-2320-7973, Issue-7, Vol-2 -2014, pp (70-76)
 29. Photodegradation of LDPE Films: Statistical analysis with Carbonyl Index, AJBPR, ISSN No- 2231-2560, Issue-4, Vol-4 -2014, pp (203-209)
 30. Effect of Idol immersion on Narmada River, Shodh Samagra, ISSN No.- 2395-2725, Issue-1, Vol-I (1)-2015, pp (40-41)
 31. Photo Degradation Study of LDPE films: a statistical analysis with stress at Break, AJBPR, ISSN No- 2231-2560, Issue-2, Vol-5-2015, pp (1-8)
 32. Two Dimensional QSAR studies of 1,5-Benzodiazepine derivatives as Hepatitis C virus HUH7- Replicon Activator, Shodh Samagra, ISSN No.- 2395-2725, Issue-2, Vol-I(2)-2015,pp (74-84)
 33. Photo degradation Study of Black Agriculture films-A Statistical Approach, Shodh Samagra, ISSN No.-2395-2725, Issue-2, Vol-I (3)-2015, pp (12-17)

34. Two Dimensional Quantitative Structure Activity Relationship Studies of Imidazobenzodiazepines as Potent PARP-1 Inhibitors for treatment of Ischemic Injuries, Shodh Samagra, ISSN No.-2395-2725, Issue-3, Vol-I(3)-2015, pp(22-29)
35. Kinetics of Oxidative decarboxylation of L-aspartic Acid by Permanganate, Shodh Samagra, ISSN No.- 2395-2725, Issue-3, Vol-I (3)-2015, pp (74-76)
36. Chemistry behind Adamgarh and Bhimbethka Rock Paintings, Shodh Samagra, ISSN No.- 2395-2725, Issue-Special Edition, Vol-I -2016, pp (42-44)
37. मृदा पुनर्निर्माण विश्लेषण एवं उपचार, Shodh Samagra, ISSN No.-2395-2725, Issue-5 , Vol-II (1) -2016, pp (17-21)
38. Soil Fertility & Productivity in Hoshangabad District, Shodh Samagra. ISSN No.-2395-2725, Issue-6, Vol-II (2) June-2016, pp (4-8)
39. QSAR Modeling of Log P of phenol Derivatives using 3-D Descriptors, Shodh Samagra, ISSN No.-2395-2725, Issue-7 , Vol-II(3) -Sept.2016 ,pp (30-33)
40. व्यक्तित्व कौशल विकास में सहायक है क्रीड़ा गतिविधियाँ, Shodh Samagra, ISSN No.- 2395-2725, Issue-8 , Vol-II(4) -Dec. 2016 ,pp (29-31)
41. Micronutrients Availability and Soil Quality, Shodh Samagra, ISSN No.- 2395-2725, Issue-10, Vol-III (2) -2017, pp (24-28)
42. Impact of Fertilizers and Pesticides on Soil and Human Health, Shodh Samagra, ISSN No.-2395-2725, Issue -Special Edition -2018, pp (65-67)
43. Soil Quality Control and Measurements Methods, Shodh Samagra, ISSN No.- 2395-2725, Issue-10, Vol-III (2) -2017, pp (51-55)
44. Studies of Polarizability of Phenol and its Derivatives Using Computational Methods, ASIAN JOURNAL OF ORGANIC & MEDICINAL CHEMISTRY, ISSN No.-2456-893, Issue- IV , Vol-II -2017 ,pp (01-04)
45. Modeling of IC50 (5-LOX and COX) Activity of Phenol Derivatives Against Leukemia Cells, ORIENTAL JOURNAL OF CHEMISTRY, ISSN No.- 0970-020X, Issue-II , Vol-33 -2017 ,pp (1057-1060), UGC Care Group-II.
46. Modeling of Acute Toxicity of Phenol Derivatives using Computational Methods, ASIAN J. REASERCH CHEM., ISSN No-0974-4169, Issue-V, Vol-10 2017, pp (626-628)
47. Effect of Fertilizer and Pesticides on Soil and Human Health, Shodh Samagra, Issue -II , Vol.- III(3) Jan. 2019, ISSN No.-2395-2725, pp (122-124)
48. Water Resources: Let us Manage it, Shodh Samagra, Issue -11, Vol.- III (3) , ISSN No.-2395-2725, pp (80-83), March. 2019.
49. Statistical Approach to Modelling of Activity of Phenol's and its Derivatives against L1210 Leukemia cells, ASIAN J. REASERCH CHEM., ISSN No-0974-4169, Issue- 13(3, pp (237-240)), 2020.
50. Preventive Steps to Minimize, Soil Degradation by Fertilizers and Pesticides, Naveen Shodh Sansar (An International Refereed/ Peer Review Research Journal),

ISSN 2320-8767, E- ISSN 2394-3793, E-Journal, Vol.-I, Issue XXX, April to June 2020.

51. Soil Contamination and Need of Public Awareness, Naveen Shodh Sansar (An International Refereed/ Peer Review Research Journal), ISSN 2320-8767, E-ISSN 2394-3793, April to June 2020, E-Journal, Vol. I, Issue XXX.
52. Prediction of Total Polar Surface Area (TPSA) of Phenols Derivatives by Computational Method, Juni Khyat, ISSN 2278-4632, Vol-11(4-3), April-2021, UGC Care Group-I.
53. QSAR Modelling of Aqueous Solubility of Phenols Derivatives by Computational Method, Gunvartika, pp (6-8), 2021
54. Modelling of Molar Refractivity of Phenols Derivatives as Anti-Lukaemia Agents by Computational Method, International Journal of Advanced Research in Science, Engineering and Technology, Vol.-8, Issue-6, Pp (17510-17515), ISSN 2320-1126, June-2021, UGC Care Group-I.
55. FTIR Study of weather Irradiated Black Agriculture Film, Naveen Shodh Sansar (An International Refereed/ Peer Review Research Journal), E-Journal, Vol.-I, Issue XXXVIII, ISSN 2320-8767, E- ISSN 2394-3793, April to June-2022
56. Prediction of Surface Tension of Phenolic Compounds (Anti-Lukaemia Agents) using Regression, IQSR Journal of Applied Chemistry, Volume-15(5) Pp-39-43, ISSN 2278-5736, May-2022, UGC Care Group-I.
57. Electricity Generation from Renewable Solar Energy Resource, International Journal of Bhopal (An International Research Refereed and Peer Reviewed Journal For all Subject), Volume-I, ISSN 2347-5897, January-March 2023
58. Statistical Approach to Prediction of Polarizability (Alpha) of Phenol's and Its Derivatives as Anti-Lukaemia Agents, Journal of Emerging Technologies and Innovative Research (JETIR), ISSN 2349-5162, Vol.-10, Issue-4, Pp (e474-e478) April-2023
59. Assessment of Heavy Metal in Textile Industrial Waste Water and its Treatment by Photocatalytic degradation with TiO_2 nano catalyst, International Journal of Innovative Research in Technology (IJIRT), ISSN 2349-6002, Vol.-9, Issue-11, Pp (1013-1015), April-2023
60. Validation of QSAR Models Using External Statistical Approach in Drug Discovery, Journal of Emerging Technologies and Innovative Research (JETIR), ISSN 2349-5162, Vol.-11, Issue-7, Pp (a672-a676), July-2024
61. Environmental Assessment of Narmada River Water Quality at Sandia to Hoshangabad & Photo Degradation by Nano-Catalyst ZnO, International Journal of Advanced Research (IJAR), ISSN 2320-5407, Vol.-12(2), Pp (206-209), February-2024
62. Synthesis and Characterization of Cobalt-Doped ZnO Nanoparticles for Enhanced Photocatalytic Activity, International Journal of Science and Research (IJSR), ISSN 2319-7064, Vol.-13, Issue-3, Pp (818-821), March-2024

Details of Work Done
1. Online Admission Committee (Coordinator)
2. Semester Cell (Coordinator)
3. Pay Fixation Committee (Coordinator)
4. Time Table Committee (Coordinator)
5. Sports Committee (Member)
6. IQAC (Member)
7. CM Help Line (Member)
8. SC/ST Committee (Member)
9. Janbhagidari Samiti (Member)
10. NAAC Committee (Member)
11. Hostel Committee (Member)
12. Co-Ordinator BHOJ Study Centre
13. Asst. Co-Ordinator IGNOU Study Centre
14. Nodal Officer, Koushal Samvardhan Desk
15. Internal and External Examiner in Practical Examination
16. Valuation of College Answer Books and Paper Setting
17. CCE (Question Paper, Evaluation)
18. NSS Committee and NSS Camp
19. College NEWS Magazine (Editor)
20. IT Cell Nodal Officer
21. Research Journal Shodh Samagra (Editor)
22. Indian Science Congress (Life Member)
23. Chemistry Teachers Association (Life Member)
24. PG Student Council
25. Internship Project work in UG
26. Soil Testing Internship Project work in PG
27. Central Board Of Studies (Member)

SEMINAR / WORKSHOP :

National Seminar	2009	Govt. NMV College, Hoshangabad (MP)
National Seminar	2009	Govt. Home Science College, Hoshangabad(MP)
National Seminar	2010	Govt. Home Science College, Hoshangabad (MP)
National Seminar	2011	Govt. NMV College, Hoshangabad (MP)
National Seminar	2011	Govt. NMV College, Hoshangabad (MP)
National Seminar	2011	Govt. Home Science College, Hoshangabad (MP)
National Seminar	2012	Govt. Home Science College, Hoshangabad (MP)
National Seminar	2012	Govt. NMV College, Hoshangabad (MP)
National Workshop	2012	Govt. Girls College, Itarsi (MP)
National Workshop	2012	Govt. MGM College, Itarsi (MP)
National Seminar	2012	Govt. MGM College, Itarsi (MP)
National Seminar	2013	Govt. Girls College, Itarsi (M.P)
National Seminar	2013	Govt. Girls College, Itarsi (M.P)
National Seminar	2014	Govt. College Budhni (M.P)
National Seminar	2014	Govt. PG college Pipariya (M.P)
National Workshop	2014	Govt. Home Science College, Hoshangabad (MP)
National Workshop	2014	Govt. Home Science College, Hoshangabad(MP)
National Seminar	2015	Govt. Home Science College, Hoshangabad (MP)

2014-15

क्र. सं.	प्रस्तुत पत्र का शीर्षक	सम्मेलन/संगोष्ठी का विषय	द्वारा आयोजित /प्रायोजित	शोध संगोष्ठी/ कार्यशाला
1.	Photo Degradation of Food Packaging LDEP Films	Biodiversity Environment and Man	Sponsored by UGC	National
2.	परिवार का नैतिक विकास पर प्रभाव	वर्तमान परिवेश में नैतिक शिक्षा एवं व्यक्तित्व विकास की प्रासंगिकता	उच्च शिक्षा विभाग, म.प्र. शासन	National
3.	Effect of Pesticides on working women	अन्तर्राष्ट्रीय फ़ैमिली फ़ार्मिंग	मध्य प्रदेश विज्ञान प्रौद्योगिकी परिषद भोपाल	State
4.	Water Pollution due to Idol Immersion	इकोफ़ेडली मूर्तियों के प्रति जागरूकता द्वारा जल प्रदूषण पर नियंत्रण.....	मध्य प्रदेश विज्ञान प्रौद्योगिकी परिषद भोपाल	State

5.	सहभागिता	म.प्र. की अनुसूचित जाति एवं जनजातियों के लिए जैवप्रौद्योगिकी जागरूकता कार्यक्रम	मध्य प्रदेश विज्ञान प्रौद्योगिकी परिषद भोपाल	State
6.	New Trends in Medical Research	भारत में व्याप्त स्वास्थ्य समस्याएँ एवं उनके निराकरण हेतु विभिन्न प्रयास	मध्य प्रदेश विज्ञान प्रौद्योगिकी परिषद भोपाल	State
7.	सहभागिता	Workshop on Medical Nutrition Therapy	मध्य प्रदेश विज्ञान प्रौद्योगिकी परिषद भोपाल	State
8.	e-Governance: Better Governance	मध्यप्रदेश के स्थानीय स्वशासन में ई-गवर्नेंस की उपादेयता एवं संभावनाएँ	शा. महाविद्यालय टिमरनी	College
9.				

2015-16

क्र. सं.	प्रस्तुत पत्र का शीर्षक	सम्मेलन/संगोष्ठी का विषय	द्वारा आयोजित /प्रायोजित	शोध संगोष्ठी/ कार्यशाला
1	मृदा पुनर्निर्माण विश्लेषण एवं उपचार	औषधीय पौधों का महत्व, उपयोग एवं हर्बल उत्पादन में रोजगार की संभावनाएँ	जनभागीदारी समिति, शा. गृहविज्ञान महाविद्यालय होशंगाबाद, म.प्र.	National Workshop
2	Chemistry behind Adamgarh and Bhimbethka Rock Paintings	होशंगाबाद जिले का पुरातत्व एवं इतिहास (प्रारंभ से 1975 ई. तक)	जनभागीदारी समिति, शा. गृहविज्ञान महाविद्यालय होशंगाबाद, म.प्र.	National Seminar
3	सहभागिता	एजोला- जैव उर्वरक एवं पौष्टिक पशु आहार	जनभागीदारी समिति, शा.गृहविज्ञान महाविद्यालय होशंगाबाद, म.प्र.	National Workshop
4	E-Governance, Good Governance	E-Learning (Education) in Digital India	शा. एम.जी.एम. महाविद्यालय, इटारसी	National Seminar

2016-17

क्र. सं.	प्रस्तुत पत्र का शीर्षक	सम्मेलन/संगोष्ठी का विषय	द्वारा आयोजित /प्रायोजित	शोध संगोष्ठी/ कार्यशाला
1.	e-Governance	DIGITAL INDIA : CONNECT GLOBALLY THROUGH TINTERNET	जनभागीदारी समिति शा. गृहविज्ञान महाविद्यालय,होशंगाबाद	कार्यशाला
2.	मृदा प्रदूषण	स्वच्छ पर्यावरण के निर्माण में स्वच्छता कार्यक्रमों की भूमिका	म.प्र. विज्ञान एवं प्रौद्योगिकी परिषद भोपाल द्वारा प्रायोजित	कार्यशाला
3.	व्यक्तित्व विकास में सहायक है क्रीड़ा गतिविधियाँ	विद्यार्थियों के व्यक्तित्व एवं कौशल विकास में क्रीड़ा गतिविधियों की भूमिका	क्रीड़ा विभाग / वि. वि. अनुदान आयोग	राष्ट्रीय शोध संगोष्ठी

			शा. गृहविज्ञान महाविद्यालय, होशंगाबाद	
4.	सहभागिता	पर्यावरण संरक्षण के परम्परागत और वैज्ञानिक दृष्टिकोण	इतिहास विभाग / जनभागीदारी समिति शा. नर्मदा महाविद्यालय होशंगाबाद	राष्ट्रीय शोध संगोष्ठी
5.	India and Software	Emerging Technology(Em- tech) For Innovative India	शा. महात्मा गांधी महाविद्यालय, इटारसी	राष्ट्रीय शोध संगोष्ठी

2017-18

क्र.सं.	प्रस्तुत पत्र का शीर्षक	सम्मेलन/संगोष्ठी का विषय	द्वारा आयोजित / प्रायोजित	शोध संगोष्ठी/ कार्यशाला
1.	सहभागिता	Various Facets of Tourism	उच्च शिक्षा विभाग, म.प्र. शा.नर्मदा महाविद्यालय, होशंगाबाद	राष्ट्रीय शोध संगोष्ठी
2.	सहभागिता	राष्ट्रीय नदी महोत्सव, होशंगाबाद	नर्मदा समग्र एवं म.प्र.जनअभियान परिषद	राष्ट्रीय शोध संगोष्ठी