Web Impact Factor of Selected University Libraries of Uttar Pradesh: Webometric Study

Dr Kanchan lata Dixit^a, Dr Chandra Kumar Dixit^b, Dr Praveen Kumar Pandey^b, Dr Dinesh Kumar Singh^b, Dr Susheel Kumar Singh^b, Dr Deepali Singh Chauhan^c

a. Maharishi University of Information Technology, Lucknow UP

b.Dr Shakuntala Misra National Rehabilitation University, Lucknow UP

b. Dr Shakuntala Misra National Rehabilitation University, Lucknow UP

b. Dr Shakuntala Misra National Rehabilitation University, Lucknow UP

b. Dr Shakuntala Misra National Rehabilitation University, Lucknow UP

c. Chandra Shekhar Azad University of agriculture and Technology , Kanpur UP Email- praveen.pandeylis005@gmail.com

Abstract:- "This study examine the Web Impact factor of selected universities Libraries website of Uttar pradesh. We are use many parameter Like a Domain, website page speed, Domain Authority, Page Authority, External Followed Link, Internal followed link and Total Link and Impact factor, after analysis we found AMU Library website mobile page speed with 40% and desktop page speed in 53%. The University of Lucknow Library in Mobile page speed with 36% and Desktop page speed 55%, BBA University mobile speed 50% and Desktop speed with 53%. AMU library with 39% Domain Authority and 54 % page Authority, University of Lucknow Domain Authority with 39% and Page Authority 29%, BBA University found Domain Authority 34% and 31% page Authority. AMU Library website Internal followed links with 16,095,897, External followed Link with 227750, Total Link 16367192, University of Lucknow Library website Internal followed links with 678964, External followed Link with 90270, Total Link 793660, Library website Internal followed links with 10,957,211, and External followed Link with 38760, Total Link 10,999,635, 39200 webpages received. The Internal WIF of AMU Library website 410.60, EWIF 5.80, SWIF with 417.53. Impact factor Forward the University of Lucknow total webpages 7740 we are retrieve in Google search Engine followed the IWIF with 87.72, EWIF 11.66, SWIF 102.54. The other Babasaheb Bimrao Ambedkar University found the total 6730 webpages, IWIF 1628.11, EWIF 5.72, and SWIF 1634.41."

Key word;- Webometric; Webometric Analysis; Web Impact Factor; Domain and Page Authority; Link Analysis; Page Speed

I. Introduction:

Higher education in Uttar Pradesh, India includes many institutions and disciplines. Uttar Pradesh is one of the most populous states in India and plays an important role in the country's higher education learning system.

Types of Higher Education in Uttar Pradesh

Universities: There are many higher education institutions in Uttar Pradesh such as state universities, central universities, university colleges and private schools. Some of the famous universities are Banaras Hindu University (BHU) in Varanasi, Aligarh Muslim University (AMU) in Aligarh and Lucknow University in Lucknow.

Aligarh Muslim University (AMU) is one of the most prestigious educational institutions in India, located in the city of Aligarh, Uttar Pradesh.

Maulana Azad Library (ISO 9000:2015) is the Central Library of the Aligarh Muslim University which is famous for its invaluable collections of manuscripts, rare books and artifacts. M.A. Library currently holds about 14 lakhs volumes of books and subscribes to popular research journals and databases. The library meets the needs of its students, academics and research scholars with a wide range of library services provided by more than 110 college and departmental libraries including Engineering College Library, Medical College Library, Social Science Cyber Library and Ajmal Khan Tibbiya College Library.

DOI: 10.9790/0050-11022534 www.iosrjournals.org 25 | Page

University of Lucknow

The idea of starting a University at Lucknow was first moot by Raja Sir Mohammad Ali Mohammad Khan, Khan Bahadur, K.C.I.E. of Mahmudabad, who contributed an artic0xlcv n x-e to the columns of "The Pioneer" urging the foundation of a University at Lucknow. A little later Sir Harcourt Butler, K.C.S.I., K.C.I.E, was appointed Lieutenant-Governor of the United Provinces, and his well-known interest in all matters under his jurisdiction, especially in matters educational, gave fresh life and vigour to the proposal. The first step to bring the University into being was taken when a General Committee of educationists and persons interested in university education appointed for the purpose, met in conference at Government House, Lucknow, on November, 10, 1919. At this meeting Sir Harcourt Butler, who was in the chair, outlined the proposed scheme for the new university.

Name of Library Tagore Library Cyber Library

The Babasaheb Bhimrao Ambekar University:-

The Babasaheb Bhimrao Ambedkar University was established by an Act passed by the parliament (No. 58 of 1994). The University came into existence on 10.01.1996 vide GOI, Ministry of HRD, Education Department Notification No. 8-16/GOI/desk/U-1 dated 05.01.1996. The basic philosophy and policies of the University are spelt out and enshrined in the University Act and Statutes. The University offers graduate and post-graduate students the knowledge and skills needed to succeed as persons and professionals, and the values and sensitivity necessary to serve the society. The University distinguishes itself as a socially responsible learning community of high quality scholarship and academic rigor sustained by social justice and equity principles for which Babasaheb Bhimrao Ambedkar worked during his lifetime. The University draws from the cultural, intellectual and economic resources of Uttar Pradesh and other states to enrich and strengthen its educational programs.

Keeping with the vision and mission of the Babasaheb Bhimrao Ambedkar University (BBAU), Lucknow, the Central Library was established in January 1998 to promote knowledge through its effective dissemination of information resources. The Central Library of BBAU has named as Gautama Buddha Central Library after the name of Lord Gautama Buddha. The Library is governed by LAC (Library Advisory Committee). The LAC is apex policy making body which functions under the chairmanship of Hon'ble Vice-Chancellor. The library acts as learning resource centre of the University to supplement education and information needs of the faculty and students. The Library has been played a key role in generation, preservation and communication of knowledge for education and research of the university. It provides information services and facilities to meet requirement of the teaching, training and research programmes. The seating capacity of the Library is more than 400 users at a time. The library services are also open to the University staff and visitors. Information and Communication Technologies (ICT) have been changed at very fast pace. Development of ICT has great impacted on libraries all over the world. The Central Library has been adapting new technologies including RFID system, smart library card, self-check-in kiosk, hybrid security gate, library automation with Koha open source, library website, institutional repository, IRINS, ILMS, remote access, e-resources etc. for providing web-based information services to the library users. The Library is, member of 'E-Shodhsindhu' National Consortium for Higher Education Electronic Resources of INFLIBNET (Information and Library Network), Gandhinagar.

II. Literature Review :-

Muthuraja and Veerabasavaiah (2018) evaluate the Kannada language newspaper website. The 10 Leading kannada language newspaper websites from the state of Karnataka were taken for evaluation with the help of Alexa databank and relevant data including traffic rank page viewed, speed links and bounce percentages, time on site, search percentage, and percentage of Indian/Foreign users were collected and these data were tabulated of Indian /Foreign users were collected and these data were tabulated and analysed. It was observed that Vijayakarnataka has 2,255 the highest traffic rank in India Udayavani has 27903 the highest traffic rank in global perspective.

Stephen (2020) conducted a research and found the traffic rank in India, especially central Institutions of North east region, the best ranked central university of North East Region are NEHU and TU with traffic rank of 8484 and 8511 respectively.

Stephen (2020) conducted a research and found the traffic rank in India, especially central Universities of North east region, the best ranked central university of North East Region are NEHU and TU with traffic rank of 8484 and 8511 respectively.

Patel Sandip and etal (2021) Conduct study Web visibility and research productivity of NIRF ranked Institutions in India: webo metric Study 15 NIRF ranked Indian Universities. Overall finding revealed that

Bharathiar University website achieved highest web impact factor followed by Institute of Chemical Technology website among the respondent Institutions websites. Anna University website having a highest page authority score that is 59 out of a total 100 and the highest web traffic, backlinks and referring domains where university of Delhi Website has achieved first alexia traffic global rank while Savitribhai Phule pune university website achieved 1st Alexa traffic Indian Rank.

Purpose of Study

- 1. To find out the Selected Universities of Uttar Pradesh
- 2. To analysis Page speed and mobile responsive of Universities
- 3. To find out Domain and page Authority
- 4. To calculate the Link Analysis
- 5. To analysis Impact factor

Scope

This study focused on selected Universities Library of Uttar Pradesh. The selected Three University Libraries are Aligarh Muslim University Library, University of Lucknow and Baba Bim Rao Amedkar University Libraries. This study limitation the Library website link on found the university website and analysis the web impact factor by www. Moz.com

III. Methodology:-

The research methodology was applied for collect Data from Selected Universities of UP the search engine using tools https://moz.com/link-explorer developed by Moz. Com that help to analysis the links of related concern university Library website. The data was collected on 01st November 2021.

IV. Data Analysis and Interpretation

Various impact factors such as the simple web impact factor, Internal web impact factor, external web impact factor have been visualized as the result of the web impact factor, Ingwersen introduced on relatively straight forward measure, web Impact factor (WIF) in 1998. The WIF measure may be defined as the number of web pages in a website receiving links from other website, divided by the number of web page published in the site that accessible to the crawler.

We are use the following formula has been applied for the SWIF Calculation of

'Distribution of Data by SWIF"
SWIF= Total no. of Links
Total No. of Webpages

Calculation of "distribution of Data by IWIF" as the formula was applied

IWIF= Total No. of Internal Links Total No. of Webpages

The following formula has been used for the calculation of "Distribution of Data by EWIF"

EWIF= Total No. of External Links Total No. of Webpages

Table 5.1:- List of Universities and website

Selected Universities in UP website show the Location wise established year wise, Types, Library website and Domain.

Name of Uni	versity	Location	Year	Type	Library Website	Domain
Aligarh University	Muslim	Aligarh	1920	Central	https://www.amu.ac.in/libraries/maulana-azad-library	.ac.in
University of	Lucknow	Lucknow	1867	Sate	https://www.lkouniv.ac.in/article/en/tagore-library-a-brief-profile	.ac.in
Babasaheb Amedkar un	Bimrao iversity	Lucknow	1996	Central	https://www.bbau.ac.in/Library.aspx	.ac.in

DOI: 10.9790/0050-11022534 www.iosrjournals.org 27 | Page

https://www.whatsmydns.net/domain-expiration?q

https://www.whatsmydns.net/domain-age

above table explore that University of Lucknow is a University in this table and Babasaheb Bimrao Amedkhar University is a newest university. The all University types are Central/State and Domain is .ac.in.

Table:- 5.2 Page speed and mobile responsive of Institutions website with site checker

List of University	Mobile	Desktop
Aligarh Muslim University	40	53
University of Lucknow	36	55
Babasaheb Bimrao Amedkar university	50	53

https://pagespeed.web.dev/analysis/

https://pagespeed.web.dev/analysis/ top

The mobile and desktop page speed analysis after we are find out that AMU Library website mobile page speed with 40% and desktop page speed in 53%. The University of Lucknow Library in Mobile page speed with 36% and Desktop page speed 55%, BBA University mobile speed 50% and Desktop speed with 53%.

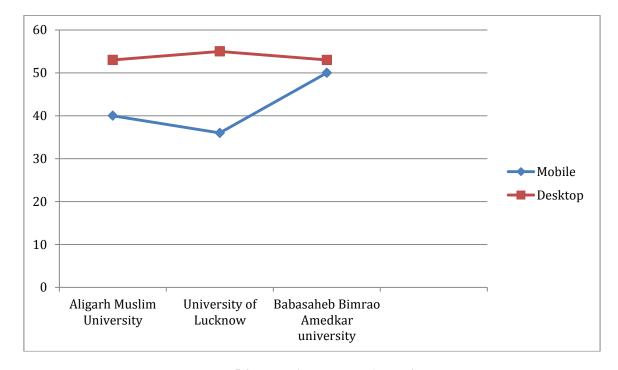
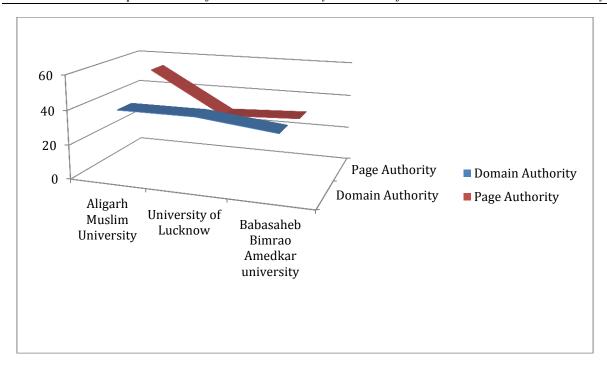


Table 5.3:-Domain and page Authority

	Domain Authority	Page Authority
Aligarh Muslim University	39	54
University of Lucknow	39	29
Babasaheb Bimrao Amedkar university	34	31

https://analytics.moz.com/pro/link-explorer/home? redirect = https://analytics.moz.com/pro/link-explorer/home

Table 5.3 its present the Domain Authority and Page Authority in this table. We found that AMU library with 39 Domain Authority and 54 pages Authority, University of Lucknow Domain Authority with 39 and Page Authority 29, BBA University found Domain Authority 34 and 31 pages Authority.



https://analytics.moz.com/pro/link-explorer/inbound-

Table No 5.4 Spam Score, External no followed links, Internal No followed links , Total Linking Domains and Followed linking domains

	Spam Score	External, no followed links	Internal, no followed links	Total Linking Domains	Followed Linking Domains
Aligarh Muslim University	4%	33,218	10,327	7,691	5851
University of Lucknow	7%	24,426	0	5,684	3,983
Babasaheb Bimrao	10%		0		1,636
Amedkar university		3,664		2,177	

https://analytics.moz.com/pro/link-explorer/compare-links?redirect=

The table show the spam score, external no followed links, internal, no followed links, Total linking domains, followed linking domains after the analysis AMU Library website spam score with 4%, external no followed links with 33,218, internal, no followed links 10327, Total linking domains with 7691, followed linking domains with 5851, University of Lacknow spam score with 7%, external no followed links with 24426, internal, no followed links not found, Total linking domains with 5684, followed linking domains with 3983, BBA University Library website spam score with 10%, external no followed links with 3664, internal, no followed links Nil Total linking domains with 2177, followed linking domains with 1636.

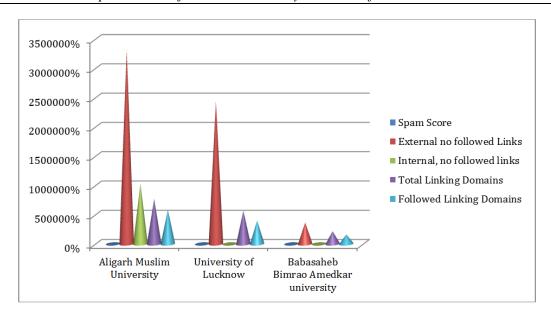


Table 5.5:-Internal Followed links, external followed links, and total links of selected Universities library Website of UP

Website of C1						
Name of Universities	Internal Followed Links	External Followed Link	Total Link			
	45005005		4 6 0 6 7 4 0 0			
Aligarh Muslim University	16,095,897	227.750	16,367,192			
		227,750				
University of Lucknow		90,270	793,660			
	678,964					
Babasaheb Bimrao Amedkar university			10,999,635			
	10,957,211	38,760				

https://analytics.moz.com/pro/link-explorer/compare-links?metric=discovered&site

The Above table explore concern Website the Internal Followed links, External Followed links and Total links of selected Universities of UP. After investigation we found that AMU Library website Internal followed links with 16,095,897, External followed Link with 227750, Total Link 16367192, University of Lucknow Library website Internal followed links with 678964, External followed Link with 90270, Total Link 793660, Library website Internal followed links with 10,957,211, External followed Link with 38760, Total Link 10,999,635, this study analysis in the www.moz.com Link analysis

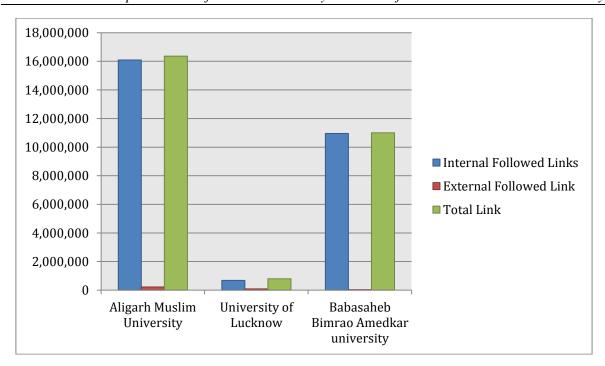
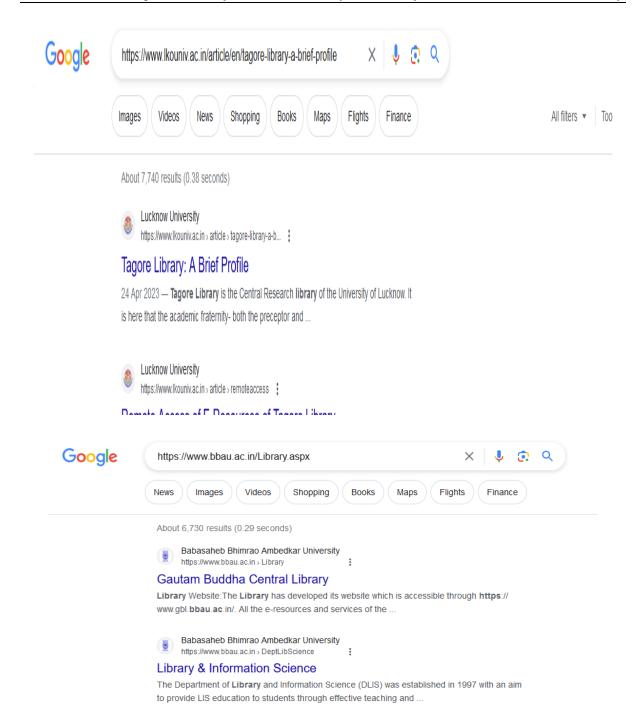


Table 5.6:- Web Impact Factor of Selected Universities Library website

Selected Universities UP	Internal Followed Links	External Follow
Aligarh Muslim University	16,095,897	227,750
University of Lucknow	678,964	90,270
Babasaheb Bimrao Amedkar university	10,957,211	38,760

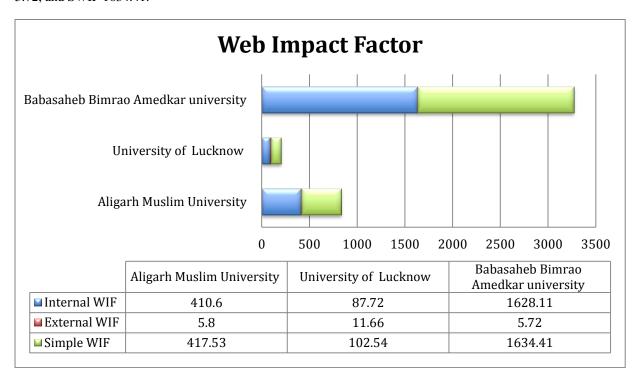
To resize chart data range, drag lower ri



Universities	Total webpage	Internal WIF	External WIF	Simple WIF
Aligarh Muslim University	39200	410.60	5.80	417.53
•	39200	410.00	3.00	417.55
University of Lucknow	7740	87.72	11.66	102.54
Babasaheb Bimrao Amedkar	6730	1628.11	5.72	1634.41
university				

DOI: 10.9790/0050-11022534

Table 5.5 its table has been show that Selected Universities Library website total webpages found on the Google Search Engine total 39200 webpages received. The Internal WIF of AMU Library website 410.60, EWIF 5.80, SWIF with 417.53. Web Impact factor found on this table. Forward the University of Lucknow total webpages 7740 we are retrieve in Google search Engine followed the IWIF with 87.72, EWIF 11.66, SWIF 102.54. The other Babasaheb Bimrao Amedkar University found the total 6730 webpages, IWIF 1628.11, EWIF 5.72, and SWIF 1634.41.



V. Conclusion:-

Library website a gateway for the patrons to access the library services and functions. Library website provide the user access to WEBOPAC, Online Resources, Services, Remote access to Digital Resource, Library user account Management , Library Events & Workshops, web Technology, Research Assistance and Guides , Library Polices and Guidelines, Contact and Feedback channels , Promotion of Library product and Library services etc. After the analysis Library website well designed and good online accessible, a good website increase the user experiences, Research and Development facilitates access to resources and services, and strengthens the connection between the library and its users.

References:

- [1]. Ahmad, M., & Batcha, S. (2018). Calculating Web Impact Factor for University Websites of Jammu and Kashmir: A Study. International Journal of Science Technology and Management, 7(5). Issue 5, pp. 17-27, Ahrefs—SEO Tools & Resources To Grow Your Search Traffic. (2019). Retrieved on November 7, 2019, from https://ahrefs.com/
- [2]. Almind, T.& Ingwersen, P. (1997). Informatics analysis on the World Wide Web: Methodological approaches to 'geometrics'. Journal of Documentation, 1997, 53(4), 404-26.
- [3]. Anyira, I. E. and Idubor, I. (2020). "Poor Webometrics Ranking of Nigerian Higher Institutions: Causes, Implications and Solutions". Library Philosophy and Practice (ejournal). 4200. https://digitalcommons.unl.edu/libphilprac/4200
- [4]. Babu, B. R.; Jeyshankar R. and Rao, P. N. (2010). Websites of Central Institutions in India: A Webometric Analysis. DESIDOC Journal of Library & Information Technology, Vol. 30(4), pp. 33-43
- [5]. Björneborn, L., & Ingwersen, P. (2004). Toward a basic framework for webometrics. Journal of the American Society for Information Science and Technology, 55(14), pp. 1216–1227. https://doi.org/10.1002/asi.20077
- [6]. Farzaneh, A., Payam, K., Zahra, O., & Abbas A. (2009). Webometric analysis of Iranian Institutions of medical sciences. Scientometrics, 80(1), pp. 253–264 DOI: 10.1007/s11192-008-2059
- [7]. Jalal, S.K., Biswas, S.C. & Mukhopadhyay, P. (2009). Webometric Analysis of Central Institutions in India: A Study. In: Internet Technology and Secured Transactions, 2009. ICITST 2009. 10.1109/ICITST.2009.5402605, pp. 1-9.
- [8]. Jati, H., & Dominic, D. D. (2017). A New Approach of Indonesian University Webometrics Ranking Using Entropy and PROMETHEE II. Procedia Computer Science, 124, pp. 444–451. https://doi.org/10.1016/j.procs.2017.12.176
- [9]. Jayeshankar R. and Babu B. R. (2009). Websites of Institutions in Tamil Nadu: A webometric study. Annals of library and information studies, 56 (2), pp.69-79.
- [10]. Jhamb, G., & Ruhela, A. (2017). A Webometric Study of the Websites of Public libraries. International Journal of Library and Information Studies, 7(4), pp.83-89.
- [11]. Khan, A. and Idrees, H. (2015), "Calculating Web impact factor for university websites of Pakistan", the Electronic Library, 33(5), pp. 883-895. https://doi.org/10.1108/EL-01-2014-0022.

- [12]. Nwagwu, Williams E., & Agarin, Omoverere (2008). "Nigerian University Websites: A Webometric Analysis" Webology, 5(4), Article 62. Available at: http://www.webology.org/2008/v5n4/a62.html
- [13]. Parmar, S.D. and Mandalia, S. H. (2016). Webometric Analysis of University in Gujarat. Journal of Advancement in Library Science. 3(2), pp. 103-111 https://doi.org/10.37591/joals.v3i2.351
- [14]. Patel, Sandip S. Dr.; Trivedi, Dharmendra Dr.; Bhatt, Atul Dr.; and Shanti, Chaudhari(2021), "Web visibility and research productivity of NIRF ranked Institutions in India: A Webometric study" (2021). Library Philosophy and Practice (e-journal). 5326
- [15]. Pechnikov, Andrey A., & Nwohiri, Anthony M. (2012). "Webometric analysis of Nigerian university websites." Webology, 9(1), Article 96
- [16]. Varadharajalu, J. & Dhanavandan, S. (2017). Analysis of Web Impact Factor (WIF) for the Website of State Institutions in Kerala. International Journal of Library and InformationStudies, 7(1), pp. 160-167.
- [17]. https://www.lkouniv.ac.in/
- [18]. https://www.amu.ac.in/
- [19]. https://www.bbau.ac.in/
- [20]. Theoretical prediction of Grüneisen Parameter for γ-Fe₂O_{3 Journals Science Direct (Elsiver)} https://doi.org/10.1016/j.cocom.2023.e00801 17 March, 2023 Shivam Srivastava, Anjani K. Pandey, Chandra K. Dixit.
- [21]. Synthesis and applications of polyaniline as one of the most explored conducting polymer by International Journal of Physics and Applications 2022 Susheel Kumar Singh, RK Shukla and CK Dixit E-ISSN: 2664-7583 P-ISSN: 2664-7575 DOI: https://doi.org/10.33545/26647575.2022.y4.i1a.69
- [22]. Synthesis of polyaniline and their application by International Journal of Physics and Applications 2022 Susheel Kumar Singh, RK Shukla and CK Dixit E-ISSN: 2664-7583 P-ISSN: 2664-7575 DOI: https://doi.org/10.33545/26647575.2022.v4.i2a.68.
- [23]. Synthesis of polythiophene and their application by International Journal of Physics and Mathematics Susheel Kumar Singh, RK Shukla, CK Dixit Online ISSN: 2664-8644, Print ISSN: 2664-8636 Published: 30-06-2022 Volume 4, Issue 1, 2022, Page No. 76-79 DOI: https://dx.doi.org/10.33545/26648636.2022.v4.i1a.66
- [24]. Analysis on the growth of artificial Intelligence for application security in Internet of things 23-02-2022 second international conference on Artificial Intelligence and Smart Energy (ICAIS), Coimbatore, IEEE Xplore India 2022, pp 6-12 doi 10.1109/ICAIS53314.2022.9742985
- [25]. Natural Language Processing using Graph Neural Network for Text Classification V. S. Kumar, A. Alemran, D. A. Karras, S. Kant Gupta, C. Kumar Dixit and B. Haralayya, "Natural Language Processing using Graph Neural Network for Text Classification," 2022 International Conference on Knowledge Engineering and Communication Systems (ICKES), Chickballapur, India, 2022, pp. 1-5, doi: 10.1109/ICKECS56523.2022.10060655. ISBN:978-1-6654-5638-8, ISBN:978-1-6654-5637-1
- [26]. "Analysis on the growth of Artificial Intelligence for Application Security in Internet of Things" by K.Thiagarajan Chandra Kumar Dixit, Dr. M.Panneerselvam, C. Arunkumar Madhuvappan, Samata Gadde, Jyoti N Shrote Proceedings of the Proceedings of the Second International Conference on Artificial Intelligence and Smart Energy (ICAIS) ISBN-978-1-6654-0051-0, 978-1-6654-0052-7/22\$31.00@2022 IEEE 2022 pp.6-12, Doi:10.1109/ICAIS53314.2022.9742985 IF=3.4 Scopus, 2nd Author
- [27]. "Detection of Cancer Cells Using G-Rich DNA Based Target Binding-Switching Calorimetric Biosensor" by Advances in Science and Technology Alisir Babakuliyev, Niladri Maiti, Annie Aglin Antony Mohammad Javed Ansari, Santosh S. Chobe Chandra Kumar Dixit Vol- 117 Pages-73-78 August 2022 ISSN 2574-9927 DOI: https://doi.org/10.4028/p-3o604e
- [28]. L-Cysteine Passivated Carbon Quantum Dots as Bisensor for early Stage Detection of Prostate Cancer by Advances in Science and Technology Published By Material Science & Engineering K. Maya Lalita Rane Tousief Irshad Ahmed, Mohammad Javed Ansari, Chandra Kumar Dixit, Rahul Kanaujiya Vol-117 Pages-67-72 ISSN 2574-9927 August 2022 Doi:https://doi.org/10.4028/p-x65kwp IF-2.03
- [29]. "Critical Review on Recent Advancement in Nanotechnology for Biomedical Application" by Advances in Science and Technology Jamal Alsadi, Ronald M. Hernandez, Sarah Haidar Hasham, Chandra Kumar Dixit, Alok Dubey Aziz Unnisa Vol-117 Pages-25-32 ISSN 1662-0356 August 2022 Doi:https://doi.org/10.4028/p-2rg620

DOI: 10.9790/0050-11022534 www.iosrjournals.org 34 | Page