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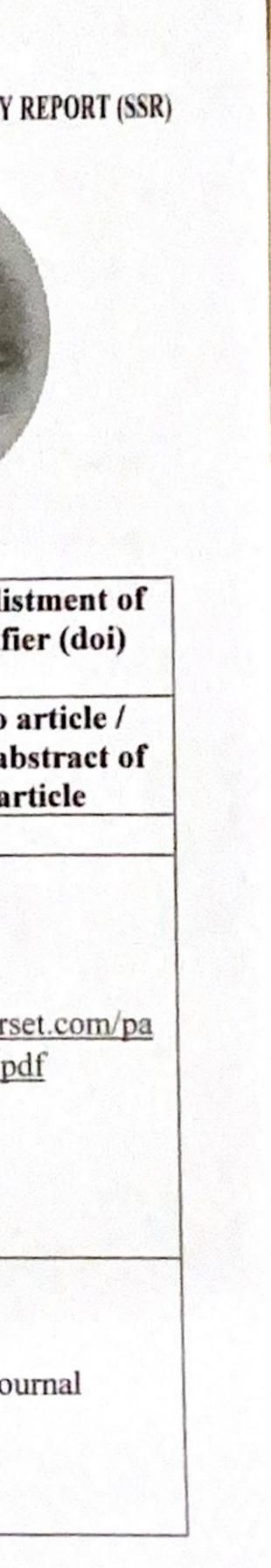
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1	Socio-Economic Characteristics of Female Population in Usilampatti Taluk, Madurai District Using Multivariate Analysis and Structural Equation Model	Dr. S. Valar Mathi	Geogr aphy	International Journal of Scientific Research in Science, Engineering and Technology	2018- 2019	ISSN:2395- 1990	https://ijsrset.com/	https://ijsrse per/4123.pd
2	Open Access journals and articles on Dentistry as listed in the Directory of open access journals (DOAJ) : A study	K.Ramasamy	Centra 1 Librar y	IALA Journal	2018- 2019	ISSN: 2319- 1392	http://alatamilnadu.org/ol d/Archives.html	Printed Jou

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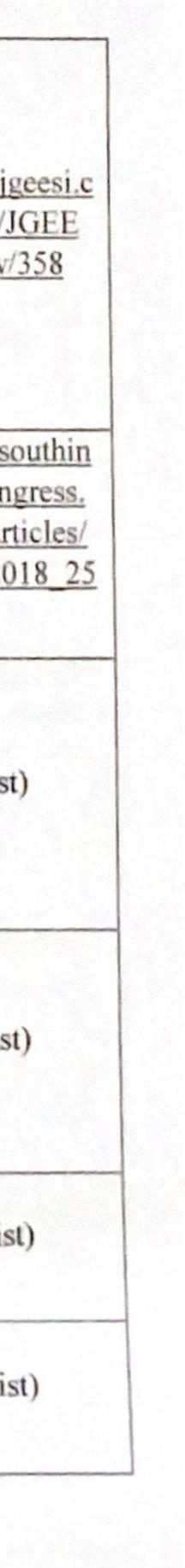
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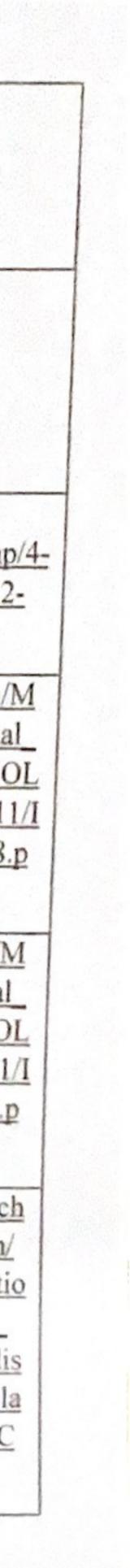
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3	Groundwater Quality Assessment for Drinking Purpose Using Water Quality INdex Method in Industrial area of Dindigul Corporation, Tamil Nadu India.	Dr.C.Florence Annal	Geogr aphy	Journal of Geography, Environment and Earth Sciences International	2018- 2019	ISSN: 2454- 7352	www.sciencedomine.org	https://journaljge om/index.php/JQ SI/article/view/3
4	The Fishery Coast Under Imperial Cholas	Dr.R.Abbas	Histor y	Proceedings of the South Indian History Congress Journal	2018- 2019	ISSN .NO. 2229-3671	https://journal.southindia nhistorycongress.org/	http://journal.so dianhistorycong org/journals/arti 2018/SIHC 201 0.pdf
5	Journey Towards Recognition as a Person: A Study of Margaret Laurence's The Diviners	Dr.G.S.Angeli n	Englis h	Journey Towards Recognition as a Person: A Study of Margaret Laurence's The Diviners	2018- 2019	ISSN:0976 - 299X	https://literaryendeavour. org/	UGC (Old List)
6	Isolation and Characterisation of Biological Growth Promoters From Gut Region Of Subterranean	Dr.P.Sathya Bama	Zoolog y	Asian Journal of Research in social science and humanities	2018- 2019	ISSN : 2249- 7315	ls.com/ijor.aspx	UGC (Old List)
7	Promotion of Small Scale Industries in India	Dr.S.Kalaivan i	Econo mics	Review of Research	2018- 2019	2249-894X	https://www.journalguide .com/journals/review-of- research	UGC (Old List)
8	Small scale Industries in the Era of Globalisation	Dr.S.Kalaivan i	Econo mics	Research Directions	2018- 2019	ISSN: 2221- 5488	http://www.researchdirec tions.org/journal- details.php	UGC (Old List



9	Vegetable Growing:Status Future And Issues In India	Mrs.I.Latha	Econo mics	Review Of Research	2018- 2019	ISSN:2249- 894X	http://www.researchdirec tions.org/journal- details.php	UGC (Old List)
10	A Study on Marketing Infrastructure for Fruits and Vegetables in India	Dr. I. Latha	Econo mics	Research Directions	2018- 2019	ISSN: 2221- 5488	http://www.researchdirec tions.org/journal- details.php	UGC (Old List)
11	A study on triangular prime total labeling of graph	Dr. K. Annadurai & G.Megala	Mathe matics	Journal of Applied Science and Computations	2018- 2019	ISSN :1076- 5131	https://j-asc.com/	https://j- asc.com/index.php/ volume-5-issue-12- december-2018/
12	Optimization Of Fuzzy Inventory Model Without Shortage Using Pentagonal Fuzzy Numbers	M.Sabina begum	Mathe matics	International Journal Of Mechanical Engineering And Technology.	2018- 2019	ISSN Online: 0976 -6359	https://iaeme.com/Home/ journal/IJMET	https://iaeme.com/N asterAdmin/Journal uploads/IJMET/VO UME 9 ISSUE 11/ JMET 09 11 258.p df
13	Optimization Of Fuzzy EOQ Model With Unit Time Depended Constant Demand And Shortages	S.Daisy	Mathe matics	International Journal Of Mechanical Engineering And Technology.	2018- 2019	ISSN Online: 0976 -6359	https://iaeme.com/Home/ journal/IJMET	https://iaeme.com/M asterAdmin/Journal uploads/IJMET/VOL UME 9 ISSUE 11/ JMET 09 11 157.p df
14	Prediction and analysis of Rheumatic heart disease using kNN classification with ACO	S.Rajathi	Comp uter Scienc e	Journal of Advanced Research in Dynamical and Control Systems	2018- 2019	ISSN: 1943- 023X	www.jardcs.org	https://www.research gate.net/publication/ 311609284 Prediction n and analysis of Rheumatic heart dis ease using kNN cla ssification with AC O



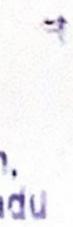
15	Sequence based homology analysis of metalloregulatory protein ArsR and cloning of arsR gene in E. coli for arsenic bioremediation.IJCR T.	Dr. M. S. Selvi	Zoolog y	International Journal of Creative Research	2018- 2019	ISSN: 2320- 2882	https://ijcrt.org/pubGuide .php	UGO
16	Open access repositories possessing conference and workshop papers: A case study of repositories registered in OpenDOAR. P.309- 315	Dr. K.Ramasamy	Centra 1 Librar y	IALA Journal	2018- 2019	2319-1392	alatamilnadu.org/old/Arc hives.html	Print

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# Socio-Economic Characteristics of Female Population in Usilampatti Taluk, Madurai District Using Multivariate Analysis and Structural Equation Model

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#### ABSTRACT

The female population characteristic of any area or region is a significant reflection of physical, economic, social justice conditions and availability of the resources. Women's status is often described in terms of their level of education, employment, income, and health as well as their roles within the family and the society. In view of this chapter has been analyzed using systematic socio spatial analysis by means of a structural eduation modeling and factor analysis to extract various aspects of the female population characteristic in the Usilampatti Taluk.

Keywords: Female Population Characteristic, Structural Eduation Modeling, Factor Analysis

#### I. INTRODUCTION

Structural Equation Modeling is a multivariate statistical analysis technique that is used to analyze structural relationships. This technique is the combination of factor analysis and multiple regression analysis or path analysis, and it is used to analyze the structural relationship between measured variables and latent constructs. Structural equation modeling (SEM) provides a very general and convenient framework for statistical analysis that includes several traditional multivariate procedures, for example factor analysis, regression analysis, discriminant analysis and canonical correlation as special cases. Structural equation modeling is a confirmatory approach to data analysis by specifying the relationships among variables since factor analysis is more exploratory and descriptive by nature so that hypothesis testing in rather difficult. Structural equation modeling provides explicit estimates of error variance parameters. Structural equation modeling procedures incorporate both observed and unobserved variables. Structural equation models are often visualized by a graphical path diagram and also a very general, chiefly linear, chiefly cross-sectional statistical modeling technique. Structural equation modeling (SEM) refers to a diverse set of unrelated computer algorithms and statistical methods that fit networks of constructs to data.

#### **II. STUDY AREA**

Madurai district is one among the 32 districts of Tamilnadu. Usilampatti Taluk is located in the northwestern part of Madurai district and south of Tamil Nadu state. The Taluk lies between 9°51'5" and 10°4'28" North latitude and between 77°40'7" and 77°58'59" East longitude (Fig.No.1). It has an average elevation of 201mts. Its total geographical area is 501.368sq.km. This taluk consist of 5 firkas and 54

# Open Access Journals and Articles on Dentistry as Listed in the Directory of Open Access Journals (Doaj) : A Study

#### Dr.K.Ramasamy

Librarian, M V Muthiah Government Arts college for Women, Dindigul

Dr.Padma

Assistant Professor, DLIS, Madurai Kamaraj University, Madurai

#### Abstract

Open access journals have created a vibration in the academic research these days thanks to the availability of various open directories. The present study aims at analysing the open access journals and journal articles on Dentistry as listed in the Directory of Open Access Journals (DOAJ) as on 19th, December 2017. The data required for the study was downloaded from DOAJ website. The study reveals that: there are 92 journals and 27697 journal articles on Dentistry; 15 are published on the subject 'Medicine', 4 are on 'General Medicine', 2 each are on the subject 'surgery' and 'health sciences'; 65 journals don't charge any article processing charges while 24 journals require payments; just 07 journals have DOAJ seal on them; a majority of 29 journals have CC BY licence followed by 20 journals with CC BY-NC-SA licence and 19 with CC BY-NC-ND license ; a majority of 18 open access journals on Dentistry is published by Wolters Kluwer Medknow Publications followed by 8 journals from Elseveir and 4 from Hindawai publishing corporation; DOAJ consists of 19 open access journals on Dentistry from the publishers of India; 80 journals are in English; that 21 journals on Dentistry in DOAJ follow blind peer review system while 56 journals follow double blind peer review ; 'Indian Journal of Dental Research' has 1970 articles followed by 'Journal of Applied Oral Science' with 1482 articles ; 10404 journal articles have CC BY-NC-SA licence followed by 7070 journal articles with CC BY licence and 5182 with CC BY-NC license; a majority of 24558 articles are in English language followed by 2574 in Portuguese language, 2098 are in Indonesian language and 2039 are in Spanish language ; that a majority of 3462 journal articles of 2015 are listed in DOAJ followed by 2874 journal articles of 2016 and 2799 journal articles of 2012. We could see journal articles of 31 years i.e from 1987 to 2018 are listed in DOAJ and 14195 articles are on available on the subject 'Medicine', 6008 are on 'Health Sciences', 1605 are on 'General Medicine', 729 are on 'Surgery' and 70 articles are on 'Technology'. Keywords: DOAJ, open access journals, Dentistry, medicine.

Introduction

Open-access (OA) literature is digital, online, free of charge, and free of most copyright and licensing restrictions. OA is entirely compatible with peer review, and all the major OA initiatives for scientific and scholarly literature insist on its importance. Open access journals and open access archives are very important tools to disseminate the scholarly literature among the users. The benefits of open access for authors, organization, users and society are great. Open access promotes wider accessibility of the information produced by the author.

# DOAJ (Directory of Open Access Journals)

The Directory of Open Access Journals (DOAJ) is a free service, which Return to Article Details Groundwater Quality Assessment for Drinking Purpose Using Water Quality Index Method in Industrial Area of Dindigul Corporation, Tamilnadu, India Download Download PDF



Journal of Geography, Environment and Earth Science International

18(1): 1-8, 2018; Article no.JGEESI.44710 ISSN: 2454-7352

#### Groundwater Quality Assessment for Drinking Purpose Using Water Quality Index Method in Industrial Area of Dindigul Corporation, Tamilnadu, India

#### J. Meenalochini1\* and C. Florence Annal2

<sup>1</sup>Department of Geography, Mother Teresa Womens University, Kodaikanal. Tamilnadu, India <sup>2</sup>Department of Geography, M. V. Muthiah Govt. Arts College (W), Dindigul, Tamilnadu, India.

#### Authors' contributions

This work was carried out in collaboration between both authors. Author JM designed the study, performed the statistical analysis, wrote the protocol, wrote the first draft of the manuscript, managed the analyses of the study and managed the literature searches. Both authors read and approved the final manuscript.

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#### The Fishery Coast under Imperial Cholas

Author(s): Dr. R. Abbas

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#### THE FISHERY COAST UNDER IMPERIAL CHOLAS

#### Dr. R. Abbas

In the ninth century inter-power conflicts between the Pallava and the Pandya kingdoms presented opportunities for the revival of the Cholas into a formidable power. Since the pearl and chank fisheries of the Gulf of Mannar were very lucrative, the Cho t a kings also made rival claims and at times seized control over them.1 Raja Raja Chola I (985-1 015), the first great Chola ruler had formidable naval fleet and hence subdued the Pandyas. Madurai and the rest of the Pandya country became part of the Chola Empire. He also brought the Cheras and the northern region of Sri Lanka under is control<sup>2</sup> The Tiruvilangadu plates contain account about the invasion of Raja Raja on Sri Lanka. He, by his powerful army excelled, crossed the ocean by ships and burnt the King of Sri Lanka.<sup>3</sup>

Rajendra Chota (1012-1044), the son and successor of Raja Raja made a triumphal march through the Pandya and Kerala countries. He appointed one of his sons as viceroy (the Pandya and the Kerala king) with the title Chola-Pandya since Madurai being the headquarters of the new viceroya Ity.<sup>4</sup> The new viceroy took possession of the bright spotless pearls, which were the seeds of the spotless fame of the Pandya kings.<sup>5</sup>

Rajendra Chola sent overseas expeditions to Sri Vijayam and won victory over it. Thus the Chola empire of South Indi a was in constant communication with the islands of archipelago and with China during this period is very clear.6 Chudamani-vihara Therefore the in Nagappattanam by the Sailendra King of Sri Vijaya cannot be viewed as an isolated undertaking all by itself. But it was the outcome of a flourishing maritime commerce between the countries of western world and China, in which Arabs, Indians and the people of the Malay Peninsula and the Indonesian Archipel ago acted as intermediaries.7

The Chinese sources record four separate Chola missions to China. The Chola envoys have presented the Chinese emperor with eight hundred kilograms of pearls, sixty pieces of ivory, sixty pounds of incense and three thousand three hundred pounds of perfumes.<sup>8</sup> Also the envoys scattered pearls from a silver container under the Chinese throne as they retired.<sup>9</sup> One understands from these Indo-Chinese missions that the Cholas exercised immense control over the Fishery Coast.

"As a general rule a pearl was considered valuable if it was perfectly round; the test for its absolute roundness was, that it did not cease rolling about all day when put on a plate. Foreign traders were in the habit of concealing pearls in the lining of their clothes and in the hand les of their umbrellas, and thus evaded the duties leviable upon them".<sup>10</sup> The Chinese records, concurrently, tell us about the tributary trade between China and Chola kingdoms. The tributes from the Chola kingdom were mostly carried by Arab merchants. Tribute bearers could make a huge profit because they were allowed to bring free of duty, prescribed quantities of goods for resale.<sup>11</sup>

The Imperial Chola rulers had developed cordial relations with the Arabs who had settled on the Fishery Coast. The Arab traders and navigators helped them to carry out trade in textiles between South India and West Asia and the Indonesian Archipelago.12 The Cholas utilized fully the maritime skill of the Arabs. The local merchants and the Arabs usually controlled trade through guilds. The Cholamandala Coast had several ports and from there spices, gems, pearls and chanks were exported to Sumatra, Java, Burma, Malaysia, Malacca, Indonesia and Far Eastern countries by these Arabs.<sup>13</sup> The Chola and the Arab merchants visited Sri Yijaya in South East Asia and from there reached China.

A particular community called Kudirai-Chettis dealt horses. They imported horses from abroad, particularly Arabia and perhaps Pegu, and distributed them among the princes and nobles in the Chola kingdom. The extensive trade described by Marco Polo and Wassaf in the beginning of the fourteenth century during the Pandya rule could not have sprung up suddenly, and its beginning must be traced to the Cholas, if not an earlier period.<sup>14</sup>

The manufacture of sea-salt was carried on under government supervision and control, and

was subjected to considerable imports in kind and money, local and central. The salt-pans of Kanyakumari were also among the more important centres of salt manufacture, which was a widespread industry all along the sea coast.<sup>15</sup>

The Cholas succeeded in maintaining extensive maritime activities and asserted their

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naval supremacy for over a century. However the Sailendras made costly adventures between 1236 and 1256 proved to be the last chapter in the Hindu oceanic supremacy. The prolonged war between the Sailendras and the Cholas ultimately harmed both and the freedom of trade and navigation was jeopardised.<sup>16</sup>

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#### PORATTU NATAKAM; A SUBALTERN THEATRE

#### P.O. Aiswarya

Theatre has constituted an important part of cultural life and public entertainment in India from pre-colonial times. Theatre shows together with epic relations, ballads, songs and folktales comprise the principle medium of communication in societies characterised by limited literary and technology. These theatrical performances create on interactive relationship with viewers and generate an immediate response according to the social realities.

The history of Indian theatre has roughly been classified into 3 prominent stages of development<sup>1</sup>. They are classical period, the traditional period and the modern period. The field of Malayalam theatre and drama had become active by the end of the 19<sup>th</sup> C. It is true that most of the cultural and art forms arise within the narrow compass of an caste, a group of caste belonging to separate class categories. The classical literary works of Malayalam were mostly produced by caste elites and deal with Ithihasa - Purana themes. The Porattu Natakam or Porattukali is a rural art form of folk theatre that has emanated from the resolute will of the down trodden<sup>2</sup> especially the Pana community perform this art form and it is popular in Palakkad District of Kerala. The census report of 1891 indicate the largest number of pana community living in Palakkad District<sup>3</sup>. They belong to scheduled caste category<sup>4</sup>. Porattukali or Porattu Nadakam is actually the voice and imagination of subaltern class. One of the challenges of doing subaltern history was to study group who did not leave their own written records. In the case of Porattukali there is no written records and there is no written script for this art form.

Porattu Natakam is entirely different from other dramas. The classical art form are performed largely based on the story of Ithihasas and Puranas and actors were professionally trained one. But there is no specific story of Porattunatakam and participants or actors are the common people using of common language.

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Journey Towards Recognition as a Person: A Study of Margaret Laurence's The Diviners

G. S. Angelin,

Ph. D., Scholar in English MTWUniversity, Kodaikanal, Associate Professor of English, M. V. Muthiah Government Arts College (W), Dindigul.

Skelton, her husband who controls everything about her and hampers her emergence as a writer. He does not allow her to have a child through him. But Morag who is orphaned at the age of five wants to have a child of her own. When Brooke is unwilling to have a child, Morag is unhappy about her legitimate desire being rejected. Brooke treats her like an object for his pleasures and not as a person whose wishes are to be honoured. She understands that nothing is possible beyond sterility. She happens to meet Jules Tonnerre, her childhood friend through whom she is able to have a child of her own. Brooke divorces her. The paper analyses a situation beyond the postcolonial and the kind of humanism attained through struggles and mental agony. Morag frees herself from the hegemony of Brooke; she overthrows a marriage and societal values to emerge as a person and as a mother. Later she finds acceptance as a writer and brings up her daughter amidst difficult circumstances.

The Diviners portrays the subordination of Morag by Brooke Skelton. Morag, born of Scottish parents, orphaned at the age of five is adopted by Christie Logan, a town scavenger and his wife Prin who are childless. She is humiliated, suffers discrimination and mockery due to her foster father's profession. Manawaka is uncongenial for her growth and so she wants to leave the place, never to return. She goes to the university at Winnipeg to pursue her education. In the university, a professor of English, Brooke Skelton marries her. He considers his bride, a child and a princess. Morag accepts this initially as romantic. As days go by, Brooke comes upon her as a downright patriarch. He speaks to her cunningly, "you might feel a bit awkward about attending classes with your husband teaching there .... Well you won't need the degree ... Education isn't getting a degree you know; it's learning, learning to think" (TD 220).

#### Abstract

The first wave feminism in Canada focused on access to education and training and recognition of women as 'persons' under the law. It is largely based on 'maternal feminism' with the idea that women are natural care givers who should participate in public life. The Diviners by Margaret Laurence presents the condition of Morag who suffers the hegemony of the patriarch Brooke Skelton, her husband who controls everything about her and hampers her emergence as a writer. He does not allow her to have a child through him. But Morag who is orphaned at the age of five wants to have a child of her own. When Brooke is unwilling to have a child, Morag is unhappy about her legitimate desire being rejected. Brooke treats her like an object for his pleasures and not as a person whose wishes are to be honoured. She understands that nothing is possible beyond sterility. She happens to meet Jules Tonnerre, her childhood friend through whom she is able to have a child of her own. Brooke divorces her. The paper analyses a situation beyond the postcolonial and the kind of humanism attained through struggles and mental agony. Morag frees herself from the hegemony of Brooke; she overthrows a marriage and societal values to emerge as a person and as a mother. Later she finds acceptance as a writer and amidst difficult daughter brings up her circumstances.

#### \*\*\*\*\*\*\*\*

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Isolation and Characterisation of Biological Growth Promoters from Gut Region of Subterranean Termites

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#### Abstract

Termites are the soil macro invertebrates. Subterranean termites Odontotermes obesus and Trinervieus trinervoides modify their environment, increasing the clay and organic matter content ensuring the soil fertility. The termite gut forms a structured environment as the "hotspot" for the microbial activity. The Azotobacter isolates of T. trinervoides and O.obesus showed a positive response in the synthesis of growth promoters like indole acetic acid (IAA) and gibberllic acid (GA). Biological growth promoters can improve plant productivity, yield and reduce the use of synthetic fertilizers increasing economic benefit.

Keywords: Subterranean Termites, Odontotermes Obesus, Trinervieus Trinervoides, PGPR, Soil Engineers.

#### Introduction

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- Con the for the second Termites are the dominant arthropod decomposers in tropical ecosystem. They are distributed throughout the tropical and subtropical regions of the world with high species diversity. Among the soil invertebrates, termites act as ecosystem engineers (Jones et al., 1994) which have profound effect on promotion of litter decomposition and the formation of stable pools of soil organic matter.



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#### PROMOTION OF SMALL SCALE INDUSTRIES IN INDIA

#### Mrs. S. Kalaivani M.A., M.Phil., D.G.T., Department of Economics, Guest Lecturer, Department of Economics, M.V.Muthiah Govt. Arts College (w), Dindigul.

#### **ABSTRACT:**

The small scale industries play a vital role in the growth of the country. It contributes almost 40% of the gross industrial value added in the Indian economy. By less capital intensive and high labour absorption nature, SSI sector has made significant contribution to employment generation and also rural industrialization. Under the changing economic scenario, SSI has to face number of diverse problems like vast population, large scale un-employment and underemployment and scarcity of capital resources and the like. Hence, the government has been providing some special facilities through

IMPACT FACTOR : 5.2331(UIF)



different policies and programmes to overcome the problems and for the growth and development of small scale industries. The efforts of the government have resulted in the phenomenal increase in the number of units in the small scale sector.

KEYWORDS : The strengths, weaknesses, threats and opportunities of Indian Small Scale Industries.

#### INTRODUCTION:

Historically, villages in India have been self reliant. Every village used to have its own cottage and small industry which fulfilled the requirement of the villages. Not only these, small scale industries were also exported products all over the world specifically to South Asia, Arab, and Central Asia. Since the time of independence, small scale industries received special privileges in the Indian economic system. The successive Indian Government encouraged small scale industries to transfer the economic power to the gross root levels, to generate employment, to have balanced regional growth, and to check concentration of wealth. Small scale sector has performed exceedingly well and enabled the country to achieve a wide measure of industrial growth and diversification. Hence, by less capital intensive and high labour absorption nature, SSI sector has made significant contribution to employment generation and also rural industrialization. The Small Scale Sector owes its definition to the Industries (Development and Regulation) Act, 1951. The Sector is defined in terms of investment limits in plant and machinery (original value), up to a prescribed value. It comprises a wide divergent spectrum of industries, ranging from the micro and rural enterprises, using rudimentary technology on the one hand to the modern small scale industries using sophisticated technology on the other.

#### **DEFINITION OF SSI SINCE 1950**

The definition of small scale industries has undergone changes over the years in terms of investment limits in the following manner:

Year	Investment Limits	Additional Conditions
1950	Upto Rs.5.0 lakh in fixed assets	Less than 50/100 persons with or without

PROMOTION OF SMALL SCALE INDUSTRIES IN INDIA

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		power
1960	Upto Rs.5.0 lakh in fixed assets	No condition
1966	Upto Rs.7.5 lakh in Plant & Machinery	No condition
1975	Upto Rs.10 lakh in Plant & Machinery	No condition
1980	Upto Rs.20 lakh in Plant & Machinery	No condition
1985	Upto Rs.35 lakh in Plant & Machinery	No condition
1991	Upto Rs.60 lakh in Plant & Machinery	No condition
1997	Upto Rs.300 lakh in Plant & Machinery	No condition
1999	Upto Rs.100 lakh in Plant & Machinery*	No condition
2001	Upto Rs.100 lakh in Plant & Machinery*	No condition

\* With effect from October 2001, the investment ceiling in Plant & Machinery in respect of 41 items covering two broad groups of Hosiery & Hand Tolls has been enhanced to Rs. 500 lakh.

Now-a-days Indian Small Scale Industries are mostly modern small-scale industries. Modernization has widened the list of products offered by this industry. The items manufactured in modern small-scale service and business enterprises in India include rubber products, plastic products, chemical products, glass and ceramics, mechanical engineering items, hardware, electrical items, transport equipment, electronic components and equipments, automobile parts, bicycle parts, instruments, sports goods, stationery items and clocks and watches.

This paper highlights the importance of evolution of different definitions of SSIs in India over the years and its contribution to the economy in India and to find out its strengths, weaknesses, threats and opportunities.

#### **OBJECTIVES**

1. To find out SSIs contribution to the economy in India.

2. To find out the strengths, weaknesses, threats and opportunities of Indian Small Scale Industries.

#### METHODOLOGY

The data has been collected from secondary sources comprising of MSME annual reports and Ministry of Commerce, Government of India from the period from 2000-01 to 2008-09. The collected data has been classified and analysed in a systematic manner. For analysis, statistical tools like Percentages, Annual growth rate are used to find out the objectives of the study.

Year	SSI UNITS (Lakh in number)	INVESTMENT (Rs.in crores)	PRODUCTION (Rs.in crores)	EMPLOYMENT (Lakh persons)	EXPORT (Rs.crores)
2004-05	118.59	178699	429796	282.57	124417
2005-06	123.42	188113	497842	294.91	150242
2006-07	261.01	500758	709398	594.61	182538
2007-08	272.79	558190	790759	626.34	202017
2008-09	285.16	621753	880805	659.35	212312

#### GROWTH OF SSIS IN INDIA

Source : MSME annual reports 2009-2010 accessed from http//www.msme.gov.in

From the above Table, it is observed that the total number of Small Scale Industries in India has increased from 118.59 lakhs in 2004-05 to 285.16 lakhs in 2008-09. During the same period, the investment has increased from Rs. 178699 crores in 2004-05 to Rs.621753 crores in 2008-09. Coming to the production and employment front also, there has been a steady increase in the overall performance from Rs. 429796



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#### SMALL SCALE INDUSTRIES IN THE ERA OF GLOBALISATION

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#### ABSTRACT :

The Indian economy has entered a phase of high growth in the recent years, after a long period of low growth. Since economic growth itself is not sufficient to achieve economic development, the concern of policy makers seems to have shifted towards making the growth inclusive – a process wherein employment is at its core. In India, Small Scale Industries (SSI) plays an important role in employment generation. After reforms the protection SSI enjoyed from government has been abolished and exposed them into greater market competition. To meet this heightened competition they have to improve their productivity and competitiveness through technological improvement. To understand the

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present situation in SSI sector we examine the trends and patterns of the SSI. Our analysis shows that majority of the SSI concentrated in traditional industries and there is no significant improvement in the technology development. Though there are many factors responsible for this condition, in this paper, we are analyzing policies which aim to improve technological capability in the SSI. Since, in India, prior to reforms, state as an important institution used policies to balancing between small and large scale sector through protection. However, after reforms state has introduced policies which encourage SSIs to be of more vitality and growth oriented via achieving competitiveness in the global market. Yet, it is surprising to note that the vibrancy and dynamism anticipated under an era of de-regulation and de-reservation, it remained largely unrealized. Hence, the present study explores the policy changes with the aim to improve the competitive strength of small firms and highlight the problems facing by SSI to approach these policies to get benefit out it.

**KEYWORDS**: The important points of the history of globalosation of small scale industrie.

#### **1. INTRODUCTION**

The Indian economy has entered a phase of high growth in recent years after a long period oflow growth. After liberalization, the economy grew at a rate of more than 6 per cent, on anaverage, during the period 1990-2004 (Agarwal, 2008). Despite this remarkable growthperformance, a major point of concern has been on the quantity and quality of employmentbeing generated (Nagaraj, 2000, Kannan and Raveendran, 2009 and Uma, 2009) and rise inequality (Pal and Ghosh, 2007). Therefore, the policy focus appears to have shifted towardsmaking growth inclusive as evident from the Eleventh Five Year Plan (2007-12) of theGovernment of India (GOI). The structural feature of the Indian economy is characterised by overwhelming presence of unorganized small scale production (above 99 per cent of allmanufacturing) which provides above 86 per cent of employment. In such an economy, thechallenge of inclusion is not merely from the point of view of growth per se, but developmentin a transformative sense (Kannan, 2007).

#### SMALL SCALE INDUSTRIES IN THE ERA OF GLOBALISATION

In this context, the growing concern for employment generation has created renewed interestin small-scale industries (SSI) in all developing countries including India. In India, adding toemployment, SSI occupies a place of importance owing to their significant contribution tonational income and exports. Economic Survey, 2009-10 showed that Micro, Small andMedium Enterprises (MSMEs) contribute about 8 per cent of the GDP of the country, about45 per cent of the manufactured output and about 40 per cent of exports. As per quickestimates of Fourth All-India Census of Micro, Small and Medium Enterprises (MSMEs), thenumber of enterprises is estimated to be about 26 million and these provide employment to anestimated 60 million persons. This shows the role of small scale industries in the economicand social development of the country. However, global integration through opening up of the economy heightened the market competition, the performances of the small scaleindustries cannot be judged by these certain relative aggregate share. If small firms have tocontinue well in terms of employment and production in the globalized competitiveenvironment, they have to be competitive (Subrahamanya et al. 2002 and Bhavani, 2002).

Regardless of the school of thought, economists, from Adam Smith, Karl Marx to NewGrowth theorists cited that technological change has a crucial role in economic growth.Similarly OECD (2007) highlighted that innovative performance is a crucial factor indetermining competitiveness and economic growth. But it is the application of advances intechnology, in connection with entrepreneurship and innovative approaches to the production, which translates scientific and technological advances into more productive economicactivity. Producers in developing countries find that the pressure of external competitionrequires them to adopt such technologies1 (Patnaik, 2006) developed in advanced countries.

In this environment of market competition and rapid technological changes, small scale unitscan then achieve higher sustained growth by enhancing its technological capabilities, improving its productivity and product quality to global standards and seeking ways of innovation. Hence, policies aim at the expansion of productive employment through the promotion of Small Scale Industries (SSI), the question of technology is of the foremostimportance (Sahu, 2006).

#### ROLE OF INSTITUTIONS OR POLICIES OF TECHNOLOGY DEVELOPMENT

Institutions include policy regimes, norms, routines, established practices, rules, laws, standards, and so on. Institutions may range from enforcements on agents to ones that createdby the interaction among agents, such as contracts; from more binding to less binding; fromformal to informal, such as patent laws or specific regulations vs. traditions and conventions. A number of institutions are national such as the patent system, while others are specific tosectors, such as sector labour markets or sector specific institutions (Joseph et. al., 2010). These institutions play a major role in shaping industries' technology development andproduction process. Hence, specific attention to the institutions that governs technologyimprovement in industries become important in the context of globalization. In this paper, weare focusing on India's institutionalized, led or enabled by government2, technologyimprovement policies and examine how far these policies achieved its goals, such as helpingindustries to develop their technology. Government policies can support innovation andtechnology development by investing in science and basic research, as well as public supportinnovative activity in the private sector. It calls for an appropriate mix of direct and indirectinstruments such as tax credits, direct support and well-designed public-private partnerships, support for innovative clusters (OECD, 2007).

Given the variation across sectors in terms of the employment and income generation, therefore poverty reduction, focus on potential sector in fostering inclusive growth isimportant. The micro foundations of technology development and, inclusive growth need tobe explored at the sectoral level. The main advantage of focusing sector provides better understanding of the nature and structure of the sector, the agents and their interactions, thelearning, innovation, technology and production process (Malerba, 2002). The sectoral2 Here we are using government and state interchangeably.



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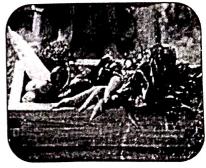
VOLUME - 7 | ISSUE - 10 | JULY- 2018

#### VEGETABLE GROWING: STATUS, FUTURE, AND ISSUES IN INDIA

Mrs. I. Latha Guest Lecturer, Department of Economics, M.V.Muthiah Govt.Arts College (W),Dindigul.

#### ABSTRACT:

Vegetables provide vital protective nutrients like vitamins and minerals in the balanced diet of human beings. It is not an exaggeration to say that there is no human being in the world who does not consume vegetables. Besides, vegetable cultivation is more labour intensive and remunerative for small and marginal farmers. Despite its utility, vegetable cultivation, consumption and marketing in India remain a relatively neglected aspect. Though India is the second largest country in terms of production of vegetables in the world, the average per capita intake of vegetables is much below the requirements of a balanced diet.



This is mainly due to severe handicaps associated with production and marketing of vegetables. The production problems include low productivity, traditional cultivation practices etc.

KEYWORDS : vegetables, nutrients, remunerative, production, problems.

#### INTRODUCTION:

In India, about 40 vegetable crops of varying significance are grown. For convenience, these vegetables may be classified into three categories, namely: Underground Vegetables, Herbage Vegetables and Fruit Vegetables. Underground Vegetables: In these vegetables, the food is stored in underground parts. The underground vegetables may be classified into two parts: roots and underground stems, i.e. - solanum tuberosum (Sweet potato), Yams, Beta Vulgaris (Beet root), Daucus Carota (Carrot) etc. Herbage Vegetables: They have the nutrient material stored in parts of the plant found above ground, i.e. - Spinach, Cabbage, Lettuce, Cauliflower etc. Fruit Vegetables: The edible portion of this group is the fruit and hence called the fruit vegetables. It includes Tomato, Lolanum Melongena (Brinjal), Pepper, Chilli, Okra, Melons and Gourds.

In recent years, keen interest has developed in vegetable cultivation on large farms that are distantly placed from consuming centres. Various varieties of vegetables have been released in the recent past both for table and processing purposes. Judicious soil-water-fertilizer-vegetable crop management techniques have been developed. Vegetable crop calendars involving adjustment of new varieties in different cropping patterns have been formulated. Transplanting techniques of cucurbits for early and increased production and seed-plot-technique for producing virus-free seed of potato in the plains of north India have been developed. Thus, new advances in technology in this sector are leading to an increase in vegetable production in the country.

#### STATUS

India is the second largest producer of vegetables in the world (ranks next to China) and accounts for about 15% of the world's production of vegetables. The current production level is over 90 MT and the total



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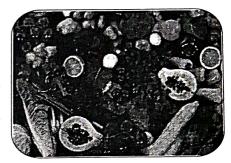
VOLUME - 6 | ISSUE - 1 | JULY- 2018

#### A STUDY ON MARKETING INFRASTRUCTURE FOR FRUITS AND VEGETABLES IN INDIA

#### Mrs. I. Latha Guest Lecturer, Dept. of Economics, M.V.M Government Arts College for Women, Dindigul ,Tamilnadu.

#### ABSTRACT :

Agriculture has a vital place in the economic development of the country as it contributes about 22 per cent to the gross domestic product (GDP) and employs about 65 per cent of the rural workforce. In any design of economic development in the country, development of agriculture has to be an integral part. Marketing is as critical to better performance of agriculture as farming itself. Although considerable progress has been cchieved in technological improvements in agriculture by the use of irrigation facilities, a high-yielding variety seed, chemical fertilizers and plant protection measures, the rate of growth in farming has not attained



the expected levels. This has been largely attributed to the fact that not enough attention has been given to marketing facilities and services. Therefore, marketing reforms ought to be an integral part of the national policy for agricultural development. In this context, this study attempts to analyse the current state of existing agricultural marketing system and its efficiency, examine alternative marketing options and their suitability to suggest ways and means to promote an effective, efficient and integrated agricultural marketing system in India.

**KEYWORDS** : Agriculture, Development, Marketing, Technological, Improvements.

#### **INTRODUCTION:**

There has been concern in recent years regarding the efficiency of marketing of fruits and vegetables, leading to high and fluctuating consumerprice and only a small share of consumer rupee reaching to the farmer. Marketing of fruits and vegetables is complex because of perishability, seasonality and bulkiness. Low efficiency in the marketing channels and inadequate marketing infrastructure are believed to be the cause forfluctuating prices. Indian farmers depend heavily on middlemen in fruits and vegetable marketing.

In the recent past, several private companies entered the businessof marketing of fruits and vegetables. Therefore, an in-depth study of theiroperations vis-à-vis the existing public/people/member based organizations like Agriculture Produce and Marketing Committee (APMC) and producerscooperatives, would help in designing suitable strategies for improving the efficiency of marketing of fruits and vegetables.

Fruits and vegetable crops assume a unique role in India's economyby improving the income of the rural households. Cultivation of fruits andvegetable crops is labour intensive and hence, generate lot of employmentopportunities for the rural population. Fruits and vegetables are rich sourceof vitamins, minerals, proteins, carbohydrates etc. and hence, referred asprotective foods and contribute to the nutritional security of the people.

Thus, cultivation of fruits and vegetables plays a vital role in the prosperity of a nation and is directly linked with the health and happiness of thepeople.Fruits and vegetables are not only used for domestic consumptionand processing into various products (pickles, preserves, sauces, jam, jelly, squashes, etc.) but



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## OPTIMIZATION OF FUZZY INVENTORY MODEL WITHOUT SHORTAGE USING PENTAGONAL FUZZY NUMBER

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#### ABSTRACT

This paper deals with an inventory model without shortages has been regarded in a fuzzy environment The intention of this study is to optimize the total cost and order quantity in fuzzy environment. In this model, the annual demand and setup cost are constituded by pentagonal fuzzy numbers. This paper develops an approach to determine the optimum order quantity and total annual integrated cost under the fuzzy new arithmetical operations using  $\alpha$  –cut principle. Graded Mean Representation method is used to defuzzify the total cost function and the Lagrangian method is used to determine optimal order quantity. A numerical example is given to demonstrate the solution procedure.

**Keyword:** Graded Mean Integration, Fuzzy Inventory System, Lagrangian Method.

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# OPTIMIZATION OF FUZZY EOQ MODEL WITH UNIT TIME DEPENDED CONSTANT DEMAND AND SHORTAGES

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#### ABSTRACT

In view of this paper, a fuzzy economic order quantity (EOQ) with shortages has been considered and analyzed in a fuzzy environment. Our aim is to determine fuzzy optimal total cost and fuzzy optimal order quantity obtained by ranking function method and Kuhn-tucker method for the proposed inventory model. Carrying cost, shortages cost, ordering cost are taken as trapezoidal fuzzy numbers. Sensitivity analysis is carried out through the result of the numerical examples.

**Keywords:** Fuzzy Inventory Model, Trapezoidal Fuzzy Numbers, Allowable Shortage, Ranking Function Kuhn-Tucker Condition.

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#### **1. INTRODUCTION**

The classical EOQ model was first developed by Harris [1]. Demand has been always one of the most effective factors in the decision relating to EOQ model as well as economic production model, Zadeh [2] first gave the concept of the fuzzy set theory, W.Ritha1 and M.Sumathi, [6] Optimization of a Single-Vendor Single-Buyer Fuzzy Inventory Model with

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## Sequence based homology study of metalloregulatory protein ArsR and cloning of *arsR* gene from *Enterobacter cloacae* in *E. coli* for arsenic bioremediation

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#### #both authors contributed

Abstract: Arsenic (As) toxicity is a serious health problem that affects millions of population around the world. Particularly, monitoring and removal of arsenite [As (III)] in the environment becomes inevitable. The existing removing techniques having some disadvantages, the reseach revealed the best alternative is microbial As (III) remediation. Microbial As (III) detoxification pathway involving the ars operon system offers a cost-effective and efficient opportunity in both detection and biodegradation. Hence, the molecular mechanism and regulation of ars operon genes and proteins for arsenic detoxicification is still unclear. Nowadays, in silico studies provide better understanding of the mechanism of metal binding to target proteins. In this context, the plasmid encoded 353bp length of arsR gene was identified from E. cloacae BC2 and its homodimeric 3D structure was predicted. In silico study exhibited ArsR is a cytoplasmic, soluble protein and its metal binding sites are H3, C30, C32, C35, H48, C89 and C106. This result implicates the N-terminal cysteine residues has vital role for As (III) removal. Docking indicated that As (III) binding with homodimeric ArsR was more selective and efficient than other heavy metals. The order of metals binding with ArsR are As<sup>(III)</sup>>As<sup>(V)</sup>>Co>Cd>Cr>Pb>Zn>Ag. In addition, the recombinant E.coli strain bearing arsR gene have efficient ArsR (12kDa) expression and significantly As removal rate at the concentration of 1000ppb of As (III). The present study provides us the structural and functional view of ArsR and its possibility of using engineered recombinant E. coli expressing ArsR protein as an inexpensive alternative solution for As (III) removal from contaminated environment.

Keywords: Arsenic toxicity; ars operon; arsenic resistance; trans-acting regulatory protein; bioremediation.

#### Ι.

#### I. Introduction

Heavy metal contamination in the environment is a serious problem resulting in the deterioration of human health [1]. In particular, As is an extremely toxic heaw metal compound present in the environment. As usually exists as organic and inorganic forms in nature; the inorganic arsenate [As (V)] and arsenite [As (III)] are toxic to human health and that causes black foot disease. cancers. osteoporosis, lung disease and atherosclerosis in human [2,3]. As is released into the environment by natural and anthropogenic sources. There are several reports on increased levels of As in soil, drinking, irrigation water and presence of As in variety of foodstuffs like cereals, vegetables and ani

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-mal food such as fish, meat, and milk [4-7]. In consequence, controlling the level of As in environment is gaining primary importance.

Reports indicate As contamination in soil and drinking water has increased several times in many parts of the world [6]; WHO 2011 and ATSDR 2015). In order to control and remediate As contamination, a number of conventional chemical methods are used at present. As (III) removal from contaminated soil and ground water can be attained by precipitationcoagulation, membrane separation, co-precipitation, adsorption, and ion-exchange methods. But the demerits of currently available methods include high cost on processing the sample for detection and instrumental cost, time consuming [8,9]. The major disadvantages of these methods are more expensive and they produce secondary compounds that are more toxic than As per se. Moreover, at present As (III) remediation needs sample manipulation and extraction process, thus, As (III) removal is a highly complex procedure and roadblocks exist at the

# **Open Access Repositories Possessing 'Conference and Workshop** Papers': A Case Study of Repositoreis Registered in Opendoar

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#### **Dr.K.Ramasamy**

College Librarian, M V Muthiah Government Arts College for Women, Dindigul

#### Abstract

- Purpose: The study reports the functioning of open access repositories registered in OpenDOAR possessing 'Conference and Workshop Papers' as a part of their digital collection. Various aspects like nature of institutional repositories (IR), type of open access IR, content types, content language, repository software used, subjects covered, availability of content, preservation and content policies and their growth rate were analysed.
- Methodology: OpenDOAR website and the websites of individual institutional . repositories were browsed to collect the required data.
- Findings: 1250 open access repositories which have Conference and Workshop Papers are registered in OpenDOAR as on 19/12/2017. Europe has the maximum number of 648 IRs (52%) followed by Asia with 229 IRs (18%). 1165 repository organisations run 1250 IRs having Conference and Workshop Papers. Europe has 599 repository organisations (51%) running 648 IRs. Unites States tops with 155 IRs (12%) followed by United Kingdom with 100 IRs (8%). Unites States tops with 136 repository organizations (12%) followed by United Kingdom with 86 organizations (7%). 96 % (1199) of the open access IRs are operational. 1114 (89 %) open access IRs belong to institutional repository type. They are run by various institutes, universities or departments. While 296 of them (2%) are the archives that aggregate data, 90 of them (7%) are the discipline-oriented repositories. 816 IRs (65 %) are multi-disciplinary in nature viz they have Conference and Workshop Papers on many subjects. 114 IRs have Conference and Workshop Papers on technology general, 104 on health and medicine, 98 on business and economics and 90 IRs on computers and IT., 1006 (80%) institutional repositories have contents in English language. 579 IRs (46 %) use Dspace software while 227 IRs (18%) have used Eprints. 107 (11%) institutional repositories have defined their preservation policies. Only 288 IRs (30%) have defined their submission polices. Internet Archive, USA tops with 23150335 records, followed by University of Michigan Library Repository, USA with

Future implications: The study can be further extended to research the individual

IRs or a comparison of related IRs viz., country-wise, continent -wise. Keywords: Institutional repositories, openDOAR, content types, repository software, preservation policy, growth rate, Conference and Workshop Papers.

Paper Type: Survey cum Research

## Institutional Repository (IR)

An IR may be defined as an on-line locus for collecting and preserving - in digital form the intellectual output of an

research particularly a institution, institution (wikipedia). According to Lynch (2003) an institutional repository is a "set of services that a university

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