

*GEOSPATIAL MAPPLE*

*LUCKNOW, UTTAR PRADESH , INDIA*

*&*

*DEPARTMENT OF GEOGRAPHY,*

*MLK (PG) COLLEGE, BALRAMPUR, UTTAR*

*PRADESH, INDIA*

**One Day International Webinar**

**RECENT ADVANCES IN  
GEOSPATIAL TECHNOLOGY  
AND ITS ROLE IN RURAL  
DEVELOPMENT**

**20<sup>TH</sup> September, 2020 Sunday**

2020

**E-Volume of  
Abstracts**

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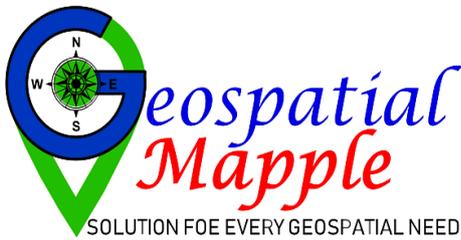
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Year: 2020

# E- VOLUME OF ABSTRACTS

ONE DAY INTERNATIONAL WEBINAR  
ON  
**"RECENT ADVANCES IN GEOSPATIAL  
TECHNOLOGY AND ITS ROLE IN RURAL  
DEVELOPMENT"**



Jointly Organized By  
**Geospatial Mapple**  
**Lucknow, U. P. India**  
In Association With  
**Department Of Geography,**  
**MLK (PG) College, Balrampur, Uttar Pradesh**

*September 20th, 2020*  
*Event Timing: From 10:00 Am to 04:00 Pm (IST)*  
*Venue: Online*

## About the one day International Webinar

Today not only in Geography but in all other disciplines and fields Geospatial technology is becoming an important tool for analysis, managing, storing and retrieving both Spatial and Non-Spatial data. Geospatial technology is a term used to describe the range of modern tools contributing to the geospatial or geographic mapping and analysis of the Earth and human societies. These technologies have been evolving in some form or other since the first map was drawn in prehistoric times. In the 19th century, the long important schools of cartography and mapmaking were joined by aerial photography as early cameras were sent aloft on balloons and pigeons, and then on airplanes during the 20th century. The science and art of photographic interpretation and map making was accelerated during the Second World War and during the Cold War it took on new dimensions with the advent of satellites and computers. Satellites allowed images of the Earth's surface and human activities therein with certain limitations. Computers allowed storage and transfer of imagery together with the development of associated digital software, maps, and data sets on socioeconomic and environmental phenomena, collectively called geographic information systems (GIS). An important aspect of a GIS is its ability to assemble the range of geospatial data into a layered set of maps which allow complex themes to be analyzed and then communicated to wider audiences. This 'layering' is enabled by the fact that all such data includes information on its precise location on the surface of the Earth, hence the term 'geospatial'. As the advances in Science and technology is keep on increases day by day with the new inventions and discoveries building a gap between advances in Science and technology and in sustainable development. To fill this gap Geospatial technology is an answer to every need. Geospatial technology can be used both for natural Features and man-made features equally. So Geospatial technology is very useful for every one working with location. The scope of job orientation in Geospatial technology is becoming wider but still very few people know its importance and applications. The objectives of this one day international webinar is to highlight the opportunities and challenges related to Geospatial technology and its application in various fields with special reference to Rural Development. Rural development is the need of the hour as without rural development the economy growth and overall growth and development of any region and country is not possible.

*Saba Khanam*

## **ABOUT MLK (PG) COLLEGE, BALRAMPUR, UTTAR PRADESH**

Balrampur, the erstwhile princely state of pre independent era, was actively involved in removing educational backwardness of the terai region by establishing schools and colleges. Immediately after getting independence, a great philanthropist Late Maharaja Pateshwari Prasad Singh took a giant step by establishing M. L. K. College in 1955 in the loving memory of his mother Maharani Lal Kunwari. With the passage of time this college became cradle for learning and research for the students belonging to terai region. The college was initially affiliated to Agra University, Agra. Later on it got affiliated to DDU Gorakhpur University, Gorakhpur and Dr. Ram Manohar Lohiya Awadh University, Ayodhya. Presently it is one of the premier colleges affiliated to Siddharth University Kapilavastu, Siddharth Nagar. The college was assessed & accredited by NAAC in 2011. The Peer team observed minutely the academic standards of the college, consisting of teaching, research and co-curricular activities beneficial to the students and awarded 3.25 CGPA out of 4 and thus decorating the college with grade 'A'. This was the only college among all the aided colleges of Dr. R.M.L. Awadh University, Ayodhya that has got the honor of having grade 'A' at that time. Recognizing the importance of occupational education, the college started B.C.A. & B.B.A. since 2010-2011 session. Home Science has been started in Arts faculty since 2013-2014 session. The college is fortunate enough to get Rs 30 lacs as financial aid from U.G.C. New Delhi under 10th Five Year Plan and Rs 21 lacs for UG development and 31 lacs for P.G. development during the 11th Five Year Plan. The college campus is furnished with Wi-Fi facility and the whole campus is covered with CCTV. The college maintains a well-furnished library. Seven hundred research scholars have been awarded Ph.D. degree till now. There are six subjects in B.Sc. and 13 subjects in B.A. It has the privilege of running P.G. courses for Chemistry, Botany, Physics, Mathematics, Geography, Political Science, Sanskrit, Hindi under grant in aid scheme; Zoology, Psychology, Education, English & M. Com. Under self-finance scheme. Thus, being associated with Siddhartha University, Kapilavastu, Siddharth Nagar, it is contributing to qualitative education under the guidance of proactive & visionary committee of management and learned and experienced faculty members. Not only the college family but also the people of terai region feel proud of this institution. Presently Dr. R. K. Singh is the principal of the college who has been a member of the Uttar Pradesh Higher Education Commission in the past.

**Jointly Organized by Geospatial Mapple, Lucknow, U.P. India in Association with Department of Geography, MLK (PG) College, Balrampur, U.P. India**

## ABOUT M/S GEO-SPATIALMAPPLE

M/s Geo-spatial Mapple is a registered partnership firm serving the geospatial industry since 2014 located in the "City of Nawabs" - Lucknow, which is the capital of Uttar Pradesh, India. Since then we are actively involved in imparting Education to students of Graduation and Post-graduation, Research scholars and professionals both government and non-government about Geospatial Technology which involves Photogrammetry, Remote Sensing, Geographical Information System(GIS) and Global Navigation satellite system (GNSS) popularly known as GPS (Global positioning system) and surveying. We are involved in conducting seminars, hands on trainings, workshop and awareness programmes related to Geospatial Technology for different schools, colleges, Universities and other government and Non-government organisations. We also organize capacity building programs.

M/s Geo-spatial Mapple also deliver the expert data collection, management, and analysis that drive projects across all disciplines in the specialized field of Geospatial Technology—from infrastructure to natural resources and everything in between. We offer high-quality remote sensing services and GIS to deliver accurate data that you need to make decisions. M/s Geo-spatial Mapple caters the data collection to our clients' needs so you have a comprehensive data that works for you. We expertly collect data, perform surveys, digitize, does ground truth verifications, analyze, and manage data, and prepare maps and reports for all the infrastructure to natural resources and everything in between.

We are involved in conducting various seminars, training programs, hand-on exercises, workshops and awareness programs for students, research scholars, teachers, and working professionals to prepare a GIS skilled workforce to meet the requirements of the Remote Sensing and GIS industry at various levels. The training, education, and capacity-building programs of the Institute are designed to have a number of teachers and students enabled with Geospatial skills that are much in demand across various sectors leading to exciting careers. The duration of courses ranges from one d to six months.

The institute is well equipped with the latest GIS software and tools currently used in the mapping industry.

Our team consists of strong, multi-disciplinary, and solution-oriented research professionals that focus on developing improved methods/ techniques for processing, visualization, and dissemination of EO data & geospatial information for various applications and a better understanding of Earth's system processes.

We strive to achieve a better world by creating a Geo-spatial solution for our clients and trainees and for society at large. We endeavor to achieve this through the proactive engagement of our associates, working professionals, and society to solve the existing environmental problems our society is facing. We believe in a collaborative model and work with multiple partners that include educational institutes, NGOs, the government, and corporates.

**Jointly Organized by Geospatial Mapple, Lucknow, U.P. India in Association with Department of Geography, MLK (PG) College, Balrampur, U.P. India**



**CHIEF GUEST**  
**G. P. SINGH**  
**Senior Technical Director**  
**National Informatics Centre (NIC)**  
**Uttar Pradesh, India**

## **Message from the Chairman, M/S Geospatial Mapple**

It is indeed my great pleasure to announce that one day International Webinar on "Recent Advances in Geospatial Technology and its Role in Rural Development" has been jointly organized by M/S Geospatial Mapple, Lucknow Uttar Pradesh, India & Department, Geography, M. L. K. P. G. College, Balrampur, U. P., India on September 20th, 2020.



Geography is the study of the diverse environments and physical features of the Earth's surface and their interactions. It focuses on the interactions of human culture with the natural environment and examines the ways in which places can have an impact on their inhabitants.

Its basic division is between physical geography, which is unambiguously a science and analyses the physical makeup of the Earth's surface and human geography, where the focus is on the human occupancy of a given area or location. Put simply, Geography is the study of human-environment relations and these two components can neither be separated nor studied fruitfully in isolation.

Geography links the local with the global. To promote Geographic Competency among the general population and specific groups such as, students, academics, policymakers etc., we should strive to arrive at a more informed understanding of environmental processes together with the human and the physical dimensions of the world. In order to do so, a strategic emphasis on statistics, mathematical modeling, GIS and the integration of Physical and Human Geography makes for both a practical and an efficient approach.

I would like to express my sincere thanks to Dr. Md. Ismail, Assistant Professor of Geography & Coordinator of IQAC of the college for organizing this webinar on a very relevant discipline and topic. I would also like to convey my sincerest gratitude to the other faculty members of the Department of Geography, the members of the Governing Body, all the Teaching & the Non-teaching staff of the college for their active support and earnest effort in organizing this webinar.

My heartfelt thanks go to Sri Manabendra Debnath, our beloved President of the Governing Body & SDO of Gangarampur Sub-division who has been very enthusiastic about organizing this webinar.

Finally, on behalf of Dewan Abdul Gani College, I warmly welcome our respected Chief Patron, Keynote Speaker, special guests, paper presenters, educators, scholars, students and all participants across the globe who have been so graciously forthcoming in being a part of this webinar despite their busy schedule. I wish this event a great success and all guests and participants a most rewarding time!

Architect Md. Ali  
Chairman (Retd. Town Planner)  
Geospatial Mapple  
Lucknow, U. P. India

## **Message from the Head of Department, Department, Geography, M. L. K. P. G. College**

It is indeed my great pleasure to announce that a one day International Webinar on "Recent Advances in Geospatial Technology and its Role in Rural Development" has been jointly organized by M/S Geospatial Mapple, Lucknow U. P., India & Department, Geography, M. L. K. P. G. College, Balrampur, U. P., India on September 20<sup>th</sup>, 2020

Geography is the study of the diverse environments and physical features of the Earth's surface and their interactions.

It focuses on the interactions of human culture with the natural environment and examines the ways in which places can have an impact on their inhabitants. Geospatial Technology can be considered as basic division of geography, which is unambiguously a science and analyses the location upon the Earth's surface where the focus is on the human occupancy and all resources of a given area or location. Geospatial Technology links the local with the global. To promote Geospatial or geographic Competency among the general population and specific groups such as, students, academics, policymakers etc., we should strive to arrive at a more informed understanding of environmental processes together with the human and the physical dimensions of the world. In order to do so, a strategic emphasis on statistics, mathematical modeling, GIS and the integration of Physical and Human Geography makes for both a practical and an efficient approach.

I would like to express my sincere thanks to Coordinator and Organizing Secretary, Media coordinator, and all the members of the organizing committee for organizing this webinar on a very relevant discipline and topic. I also express my thanks to those who have supported and helped us in putting our work together friends, students and all those who are involved with this one day International Webinar either directly or otherwise.

I would also like to convey my sincerest gratitude to the other faculty members of the Department of Geography, all the Teaching & the Non-teaching staff of the college for their active support and earnest effort in organizing this webinar.

Finally, on behalf of Department, Geography, M. L. K. P. G. College, Balrampur, U. P., India, I warmly welcome our respected Chief Guest, Keynote Speaker, Speakers, special guests, paper presenters, educators, scholars, students and all participants across the globe who have been so graciously forthcoming in being a part of this webinar despite their busy schedule.

I wish this event a great success and all guests and participants a most rewarding time!



Thank you,  
Dr. S. N. Singh  
Head of Department, Geography  
M. L. K. P. G. College  
Balrampur, U. P. India

## From the Coordinator and Organizing Secretary

On behalf of the organizing committee of this one day International Webinar on "Recent Advances in Geospatial Technology and its Role in Rural Development" has been jointly organized by M/S Geospatial Mapple Lucknow U. P., India & Department, Geography, M. L. K. P. G. College, Balrampur, Uttar Pradesh, India on September 20th, 2020 I extend a very warm welcome to the hon'ble Chief Guest G.P. Singh, both Patrons, the keynote speaker, the resource persons and speakers, all the panelists, the participants and the paper presenters of this International Webinar. It is a prestigious moment for us to organize this online International Webinar and we are extremely thankful to all the contributors. This online International Webinar is jointly organized by been jointly organized by M/S Geospatial Mapple & Department, Geography, M. L. K. P. G. College, Balrampur, U. P., India. This September gathering of all the people from many discipline like geographers, sociologist, geologist, economists and various interdisciplinary participants from the various states of India and abroad will present a very strong platform for sharing experiences, insights and thoughts on the various aspects of Geospatial Technology. The profound knowledge and experience of all the speakers in this discipline will be an excellent input and will surely enrich fellows, student and other attendees. The expected outcomes of this International Webinar are to provide various directions of knowledge and solve various problems related to Geospatial Technology. The Webinar will provide various information regarding opportunities and challenges of Geospatial Technology and the kind of opportunities available and the challenges faced by people throughout the world in contemporary times. I solicit your support and best wishes for this one day International Webinar to be a grand success. I am thankful to the Head of Department of Geography, M. L. K. P. G. College, Balrampur, and U. P. India for his kind assistance. I am also grateful to the media coordinator, members of the organizing committee, those who have supported and helped us in putting our work together friends, students and all those who are involved with the one day International Webinar either directly or otherwise.

Again, on behalf of the organizing committee, I eagerly look forward to your participation.



Saba Khanam  
Coordinator And  
Organizing Secretary

One day International Webinar

on

**"Recent Advances in Geospatial Technology and its Role in Rural Development"**

Jointly organized by

**M/S Geospatial Mapple**

**&**

**Department of Geography,  
MLK (PG) College,  
Balrampur, Uttar Pradesh**



**PATRON:**  
Architect Md. Ali  
Chairman (Retd. Town Planner)  
M/S Geospatial Mapple  
Lucknow, U. P. India

**CHIEF GUEST**  
**G. P. Singh**

Senior Technical Director  
National Informatics Centre (NIC)  
U.P.



**PATRON:**  
Dr. S. N. Singh  
Head of Department, Geography  
M. L. K. P. G. College  
Balrampur, U. P. India



**KEYNOTE SPEAKER**  
**Prof. R. P. Singh**  
Head of Department, Rural  
Development  
IGNOU

**SPEAKERS**



**Dr. Praveen Rai**  
Associate Professor,  
HOD Dept. of  
Geography  
KMC Language  
University



**Dr. Shweta Rani**  
Assistant Professor,  
Dyal Singh College  
University of Delhi



**Dr. Mehwish Anjun**  
Assistant professor,  
Geography  
Prof. Rajendra Singh  
University, Prayagraj

**COORDINATOR AND ORGANIZING SECRETARY**



Saba Khanam

**COORDINATOR MEDIA**



Younus Mohani

**ORGANIZING COMMITTEE**



Dr. Ritu Jain



Ms. Saman Ali



Dr. Hafijullah



Dr. Shahnawaz Ali



Dr. Shakeel Ahmad

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Department of Geography, MLK (PG) College, Balrampur, U.P. India**

## **\*Registration is Free\***

**Event Date: September 20th, 2020,**

**Event Timing: From 10:00 am to 04:00 pm (IST),**

**Venue: Online**

**Registration link: <https://geospatialmapple.com/webinar/>**

**Telegram Link: <https://t.me/geospatialmapple>**

**YouTube Link: [https://www.youtube.com/channel/UC8-1GsP2Vm83wvLeRv3bI4g?view\\_as=subscriber](https://www.youtube.com/channel/UC8-1GsP2Vm83wvLeRv3bI4g?view_as=subscriber)**

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**Website: <https://geospatialmapple.com>**

*Note: All the details of the webinar can be seen on the above website: Brochure, Application Form, Feedback Form, E-Volume of Abstracts, etc. can be downloaded from the website*

### **CONTACT DETAILS:**

**Dr. S. N. Singh :** *Email id- [snsinghblp@gmail.com](mailto:snsinghblp@gmail.com)*

**Saba Khanam :** *Mobile No.8299651638, [mapplegeospatial@gmail.com](mailto:mapplegeospatial@gmail.com)*

**Website: <https://geospatialmapple.com>**

## ***ONE DAY INTERNATIONAL WEBINAR PROGRAMME SCHEDULE***

<b><u>Time</u></b>	<b><u>Name Of Eminent Speaker</u></b>	<b><u>Topic</u></b>
<b>10:00 to 10:15</b>	Dr. S. N. Singh	Introductory Note /Inaugural
<b>10:15 to 10:30</b>	Chief Guest G. P. Singh	Address of Chief Guest
<b>10:30 to 11:00</b>	Prof. R. P. Singh	Keynote Speech
<b>11:00 to 11:30</b>	Dr. S. N. Singh	Administrative Set Up And Rural-development
<b>11:30 to 12:00</b>	Dr. Praveen Rai	Remote Sensing & GIS in Health and Disease Monitoring
<b>12:00 to 12:30</b>	Dr. Shweta Rani	Diffusion of Modern Digital Technology and Geoinformatics: A Move Towards Rural Transformation in India
<b>12:30 to 13:00</b>	Dr. Mehwish Anjun	New Employment Opportunities In Rural Areas
<b>13:00 to 14:00</b>	Lunch Break	
<b>14:00 to 16:00</b>	Paper Presentations of the Participants	
<b>16:00 to 16:30</b>	Valedictory, Vote of Thanks by Saba Khanam	

# ABSTRACTS

## **QUALITY OF LIFE AND ECO-DEVELOPMENT OF INDO-NEPAL BORDER (A CASE STUDY OF REGION OF EASTERN U.P. INDIA)**

**Dr. S.N. Singh, Associate Prof. & Head  
Dept. of Geography, M.L.K.P.G. College Balrampur, U.P. (India)**

### **ABSTRACT**

The emergence of environment concern during the past two decades has led to question whether so called growth of society imposed on the environment through depletion of natural diversity, degradation in quality of water, air and soil and depletion in non-renewable natural resources. Actually poverty and environment degradation are inter-related.

The present paper is concerned with the study of the quality of the life and Eco-development problems of the Indo-Nepal border. Organism coupled with their environment leads to the fine balance that exists in nature. The reciprocity of men-environment milieu gets jeopardized due to some irrational action of men which needs to be addressed so that the balance is restored. In the indo-Nepal border (Tarai region) are certain specific problems that have been dealt with in paper. These includes deforest areas cause the natural habitat of the flora and fauna to become much smaller in area which in long term might lead to species extinction.

More over the decreasing forest areas and increasing settlement areas often cause men-wild life conflicts which sometimes due to insensitivity of local people can lead to loss of precious natural resources.

This paper is an attempt to highlight the problem of land degradation along with changing in land use pattern.

**Keywords:** Environment, Quality Of Life, Eco-Development, Land Degradation, Land Use Pattern.

## **ROLE OF GEOSPATIAL TECHNOLOGY IN SUSTAINABLE RURAL DEVELOPMENT: CASE STUDY OF SWAR BLOCK OF RAMPUR DISTRICT, UTTAR PRADESH**

*Saba Khanam,*

*Email Id: sabarsgis@gmail.com*

### **ABSTRACT:**

Urban and Rural development remains a priority in the growth and poverty reduction issue in most of the developing countries. With the advancement in Science and technology the difference in the level of development of urban areas and rural areas increases immensely as in the past there was very little focus on the development of rural areas but Rural development has been receiving increasing attention of all the governments across the world and so in India. Geospatial Technology include Photogrammetry, Remote sensing, Geographical Information System (GIS) and Global Positioning System (GPS). This technology is becoming important tools for developmental planning because satellite data gives large area information in a very short time and satellite data is a permanent record and reproduced at any time. This study demonstrates its application in sustainable rural development planning especially for people at the grass root level, the farmers, in the Swar Block of Rampur district, Uttar Pradesh in the northern India. Geospatial Technology for sustainable rural development is the necessity of today. For this analysis thematic maps were produced to study the application of Geospatial Technology in the sustainable rural development. It was proved that the powerful spatial analysis of Remote sensing satellite data and GIS based efficient mapping helps in scientific planning and management. Spatial data information is integrated with non-spatial data like census data to get the information of the study area about the quality and quantity of its natural and human resources. Remotely sensed data were utilized to assess all the natural resources like agriculture, water, forest, minerals, etc. of the area. A detailed analysis of climatic, natural resources and socio-economic conditions was done using the Spatial data and non-spatial information about the phenomena. Various Thematic maps were prepared by integrating spatial data and non-spatial for the study like agriculture, forest, groundwater potential map, Population Map, Literacy Map, Sex-Ratio, Occupation Map, Caste Map, Educational Facility, Medical Facility, Total Household, etc. By integrating all the layers and through spatial analysis the scientific, practical, normative and accuracy of sustainable rural development were improved. The principal application of Geospatial Technology in rural development are land and resource mapping, integration of local and scientific spatial knowledge, community-based natural resource management, resource allocation, health management & planning, natural hazards and environmental management.

**Keywords:** Remote Sensing, GIS, Global Positioning System (GPS), Sustainable Rural Development, natural resource management

**Jointly Organized by Geospatial Mapple, Lucknow, U.P. India in Association with Department of Geography, MLK (PG) College, Balrampur, U.P. India**

## ग्रामीण प्रदेशों में जल की गुणवत्ता : प्रतीक अध्ययन में सुदूर संवेदन तथा भू-स्थानिक तकनीक का उपयोग

दिनेश कुमार

सहायक प्राध्यापक, शासकीय महात्मा गांधी स्मृति महाविद्यालय ए इटारसीए मध्य प्रदेश

षोधछात्र (SRF), भूगोल विभाग काशी हिन्दू विश्वविद्यालय वाराणसी

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डॉ० राकेश कुमार

पुर्व षोधछात्र भूगोल विभाग काशी हिन्दू विश्वविद्यालय वाराणसी ;

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### संक्षिप्तिका (Abstract)

जल संसाधन एक प्रमुख प्राकृतिक संसाधन है जो सभी संसाधनों का आधार है तथा जल के उपस्थिति के कारण अन्य प्राकृतिक संसाधनों का दोहन एवं संरक्षण सम्भव है। जल का सर्वाधिक उपयोग सिंचाई में (70 प्रतिशत) किया जा रहा है, द्वितीय स्थान उद्योगों (23 प्रतिशत) का है जबकि घरेलू तथा अन्य उपयोगों में (7 प्रतिशत) जल का उपयोग किया जाता है। आज प्रत्येक जगह जल के गुणवत्ता के बारे में बात हो रही है। देश भर में 400 से अधिक जिलों में भू-जल लगातार जहरीला होता जा रहा है। इन क्षेत्रों के पानी में आर्सेनिक, फ्लोराइड, नाइट्रेड, लोहा, सीसा, कैडमियम, क्रोमियम जैसे खतरनाक पदार्थ पाये गये हैं। ताजा आँकड़ों के मुताबिक बिहार, उत्तर प्रदेश, झारखण्ड सहित दस राज्यों के 89 जिलों के भू-जल में आर्सेनिक की मात्रा 0.05 मिलीग्राम प्रति लीटर से अधिक हो गयी है। मिनिस्ट्री ऑफ हेल्थ ऑफ इण्डिया (M.H.I.) तथा युरोपियन समुदाय (U.E.) के अनुसार पेय जल की गुणवत्ता विभिन्न प्राचालो के मानक द्वारा निर्धारित होता है। जिसमें पी एच (pH), चालकता (Conductivity), रंग (Colour), घुलित ऑक्सीजन कठोरता(Hardness), एलुमिनियम (AL), अमोनिया (NH<sub>4</sub>), आर्सेनिक(AS), बोरॉन(B), कैडमियम (Cd), कॉपर(Cu), क्रोमियम (Cr), आयरन (Fe), लेड(Pb), सोडियम (Na), जिंक(Zn) क्लोराईड(Cl), फ्लोराइड (F), सल्फेट(SO<sub>4</sub>), नाइट्रेड(NO<sub>3</sub>) प्रमुख हैं। ग्रामीण प्रदेशों में जौनपुर जनपद (25° 26' से 26° 11'N तथा 82 ° 8' से 83 ° 5'E) गंगा घाटी के पूर्वी उत्तरी प्रदेशस्थ वाराणसी मण्डल के पश्चिमोत्तर भाग में अवस्थित है। जौनपुर जनपद का भौगोलिक क्षेत्रफल 4038 वर्ग किमी० है, 2011 के जनगणना के आधार पर कुल जनसंख्या 4494204 थी। प्रस्तुत अध्ययन प्रतिदर्शों के आधार पर किया गया है। प्रतिदर्श का विश्लेषण मृदा विज्ञान एवं कृषि रसायन विभाग का० हि० वि० वाराणसी में जल परीक्षण कराया गया है तथा इसके रासायनिक परिणामों को सारणीयकृत किया गया है तथा इन्ही के आधार पर सम्पूर्ण घुलित ठोस, पी०एच० मूल्य, विद्युत चालकता, सोडियम, मैग्निशियम, क्लोराईड, बाईकार्बोनेट, और कार्बोनेट के आइसोप्लेथ मानचित्र बनाये गये हैं। अमेरिका के यू० एस० सेलिनिटी डायग्राम के आधार पर जनपद में भू-जल गुणवत्ता का विश्लेषण एवं मानचित्रण Arc GIS 10.2 एवं Erdas Imagine 14 से किया गया है। जनपद में सम्पूर्ण घुलित ठोस का विस्तार 204.8 पी० पी० एम० से 1100.0 पी० पी० एम० , सतही जल के क्लोराइड का संकेन्द्रण 21.3-92.3 पी० पी० एम० , सतही जल के कार्बोनेट का संकेन्द्रण 9.6-90 पी० पी० एम०, कार्बोनेट का संकेन्द्रण 115.9-207.4 पी० पी० एम०, वैद्युत चालकता 320 माइक्रो म्हाज/से०मी० से 710 माइक्रो म्हाज/से०मी० के बीच पायी गयी तथा जौनपुर जनपद में सतही जल के पी० एच० का संकेन्द्रण 7.3-8.2, सोडियम संकेन्द्रण 44.1-98 पी० पी० एम० के मध्य है।

## GIS APPLICATIONS IN RURAL DEVELOPMENT

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### ABSTRACT

Geographical Information System (GIS), powerful computer based technology for evaluation, planning, assessment and management due to the options and capabilities for data maintenance and manipulation through add/ delete/ change, move/ rotate, stretch/ rectify, transform projection and scale, zoom/ window, clip and modifications, 3-D projection and display and data retrieval and reporting etc. of any feature or entity, can be extremely useful for rural development studies. Management and handling of large data base of spatial and aspatial (non-spatial) nature in context of rural development research for reforms, decentralization and role of various institutions, role of various agencies and Government etc. for analysis and solutions of complex and difficult problems becomes simple, time and cost effective by GIS applications to take effective and implementable decisions. GIS can generate maps in various combinations and permutations as initial and final output (ranged colour maps or proportional symbol maps to denote the intensity of a mapped variable) to depict various aspects related with rural development in terms of different aspects and issues. GIS technology provides overlay of different pieces of information in desired and required manner and can create a buffer zone/ area around any required parameter or object. All type of calculations & measurements are possible by interactive queries of information contained within the map, table or graph. Final output can be in the form of maps, graphs and tables for future planning, course of action and management for rural resources.

**Keywords:** GIS, Spatial Analysis, Mapping, Rural Resources, Planning.

## **AGRO TOURISM AS AN ESTABLISHED BUSINESS AND OPPORTUNITY FOR RURAL DEVELOPMENT - A STUDY OF PUNE DISTRICT, MAHARASHTRA, INDIA.**

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### **ABSTRACT:**

At present agro tourism is an important component of the overall agriculture with tourism activity. Agro tourism is a concept of developing and preparing villagers for creating an alternative source of earning and sustaining their heritages with multiple benefits for both local communities and environmental protection. This kind of tourism develops where agricultural activities and tourism interacts. This touristic activity plays an important role to Establish business and opportunities for the Development in rural communities. Basically it develops as niche tourism in different parts of world. Realizing this fact the researcher visited some tehsils in Pune district, Maharashtra. The villagers are completely dependent on agriculture. As agriculture demands only few seasons engagement so they doesn't have anything else to do in offseason. The study had given a track to the youth to protect their untouchable heritages and earn money with their own people. The present paper evaluates analyses and provides a strategy as an alternative source of income to the farmers and youth of villagers at their own doorstep. The aim of this study is to improve the understanding of how agro tourism activities can contribute to establish business and new employment opportunities in rural area. The research is an applied one according to the purpose and a descriptive-analytical study due to its nature and methodology. The study is based on the questionnaires completed by 80 local elites, 100 tourists and 05 Agro Tourism Centre from the study areas.

**Keywords:** Agro tourism, rural area, development, established business, Pune district.

## **FLOOD RISK ASSESSMENT IN PARTS OF HADEJIA-JAMA'ARE RIVER BASIN OF JIGAWA STATE, NIGERIA**

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### **Abstract**

The study assesses the level of socio-economic and environmental risks associated with flood disaster in the study area, over five years (2011-2015). A combination of field and archival data was used, and survey research method involving the use of questionnaire was adopted in obtaining the required information. The data obtained were presented and analyzed statistically using frequency distribution tables, simple percentages, graphs and charts. Findings from the study revealed that flood is the most common environmental disaster in the study area, which is often accompanied by tragedies and causes serious damages to socio-economic and environmental features. The frequency of flood occurrence in the affected areas is also very often, occurring almost every year. Findings also revealed that heavy rainfall, inadequate drainage facilities and mismanagement of water reservoirs (mainly dams) are the major causes of the flood disaster. Moreover, other factors like infestation of water channels, topography, vegetation and soils of the study area also contributes to the occurrence of flood disaster in the affected areas. On consequences, findings revealed that flood disaster has both positive and negative impacts. However, from the findings it was obvious that the negative impacts overweigh the positive impacts. The flood disaster causes both environmental and socio-economic damages to a great extent. Disaster management/response organizations are making efforts in responding to the menace of flood disaster in the study area. However, findings revealed that these efforts are ineffective in addressing the risks and menace of flood disaster in the study area. The efforts are skewed primarily towards relief and rehabilitation support forth victims. There is strong need for all stakeholders to strengthen efforts towards providing a feasible solution to the risks and menace of flood disaster in the study area through precautionary/preventive and mitigation measures recommended by the study.

## **GROUND WATER RESOURCES AND DISPARITIES IN IRRIGATION DEVELOPMENT IN MALAPRABHA RIVER BASIN, KARNATAKA STATE, INDIA; A GEOSPATIAL APPROACH**

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### **Abstract:**

Water is the real elixir of life; irrigation is the adjunct of civilization, and is one of the most essential inputs next only to land for the agricultural development. Irrigation is a very important non-physical input in modern agriculture and a dynamic and decisive factor in Indian agriculture due to inadequacy and high variability of rainfall. Hence, its urgency needs no emphasis for having a stable and successful agriculture in an area like the Malaprabha river basin where rainfall is seasonally concentrated and unreliable. Agriculture is the mainstay of the basin's population. The dominance of rural population makes the regional economy mainly agrarian. The basin's 68% of the work force, however, is still dependent on the agriculture and its allied activities for their livelihood. Although the river basin has secured a good position in agricultural production in Northern Karnataka during the past three decades and its irrigated area has also increased due to the CAD Programme but not equally at taluka level.

The present study is made to analyze the role of ground water resources and disparities in irrigation development in MRB, Karnataka State. An attempt is made in the present inquiry to assess and study the net availability and gross draft of ground water resources in the light of monthly and seasonal rainfall regime in the talukas of basin for the decades of 1973-74, 1993-94 and 2013-14. The study also proposes to carry out comprehensive study of the growth of irrigation and intensity of irrigation and its volume of change in the talukas of the basin during the study period. Present study is mainly based on the secondary sources of data and reports collected from Govt. of Karnataka and other related reports. After collecting data, these were analyzed in a suitable manner by using appropriate statistical and cartographic techniques.

**Keywords:** Rainfall, Ground Water, Non-Physical Inputs, Irrigation Intensity and Agricultural Development

## ASSESSMENT ON RURAL DEVELOPMENT

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### ABSTRACT

In recent years concern about social exclusion processes has reached also rural areas. The rising unemployment and the limited opportunities for young people have turned the attention of Policy analysis to this social group and to processes of social exclusion under these specific regional conditions. The results presented are drawn from the EU-project "Policies and young people in rural development" under the 4th Framework programme (FAIR6 CT-98-4171) where different aspects of economic and social integration/exclusion of young people in rural areas and their recognition in rural development programmes of the EU has been analysed. The paper focuses on the scope to enhance the aspect of young people integration in rural/regional programmes. To this end, it starts with a presentation of the policy background and its evaluation, particularly with regard to its rising priority over the last EU-reforms. It continues with the investigation of selected exemplary cases of policy measures and initiatives specifically addressing young people in rural development provided by the seven project partners study areas. The concluding part draws on evaluation studies on rural development programmes all over the European Union with regard to youth participation and explores the scope for future strengthening of respective activities and inclusion of young people concerns in rural development programmes. Experiences from this analysis suggests that with fundamental changes in the market structures And relations programmes targeted at specific rural areas cannot neglect the emerging interrelations to other areas. Hence a rural policy addressing the needs of young people has to address directly its insertion into the regional framework and its relation to regional policy

# REMOTE SENSING AND GEOGRAPHIC INFORMATION SYSTEM USING FOR WATER RESOURCES MANAGEMENT FOR BANDAMA WATERSHED: CASE STUDY OF KOHOUA SUBWATERSHED AT FARANDOUGOU

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## ABSTRACT

Nowadays, studies on water resources management are quite important. This study on a subwatershed of the Bandama River in Côte d'Ivoire got a better understanding of the geomorphological characteristics of the study area. The use of satellite images and geographic information systems tools allowed responding appropriately the management of water resources. The Digital Elevation Model (DEM) of the Farandougou subwatershed, the Bandama river hydrographic network and the geostatistical analysis of this subwatershed have been shown and interpreted in this study. The area's elevation is between 0 and 700 meters approximatively. The value of river length minimum is around 11273.091 meters and the value of river length maximum is around 44415.180 meters, the coefficient of variation is around 0.462 for example. The geostatistic of Kohoua at Farandougou has given also mean of 449.621 meters, mediane of 441 meters, variance of 3040.996 meters and standard deviation of 55.145 meters. The majority of the Kohoua subwatershed area has an elevation around 410 meters versus the minority around 715 meters.

**Keywords:** Geomorphological, Bandama, satellite, river, elevation

## **GEOSPATIAL TECHNOLOGY AND RURAL DEVELOPMENT: A GEOGRAPHICAL APPROACH**

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### **ABSTRACT**

The advent of geospatial information technologies containing Remote Sensing (RS), Geographic Information System (GIS) and Global Positioning System (GPS), individually as well as jointly, are playing a noteworthy role in the development and inclusive growth of the rural areas in India. The applications of remote sensing include forest and wastelands mapping, land-use / land-cover mapping, land-form and land-degradation studies, agriculture and soil mapping, ecology and Geo-sciences and geo-morphologic mapping, and mineral, oil and water exploration, coastal and ocean resources studies, environmental monitoring, disaster management, urban area studies and environmental impact assessment, etc. In India, satellite systems are of two types, viz. remote sensing satellite and communication satellite. Main satellite programs of the country include Apple, Aryabhata, Bhaskra, INSAT-1 and 2 series, IRS series, Rohini and Soross. The Indian Remote Sensing (IRS) satellite system was India's first domestic devoted earth resources satellite programme. From the point of view of direct relevance of remote sensing for rural development and inclusive growth, the main center is the National Remote Sensing Centre (NRSC), Hyderabad. It is engaged in operational remote sensing activities, and is responsible for aerial and satellite remote sensing data reception/acquisition, processing, dissemination/supply/distribution of data from foreign satellites and exploring the practical uses of remote sensing technology for multilevel applications. It endeavors to provide end-to-end solutions for utilization of data for natural resource management, geospatial applications and information services for understanding the Indian Space Vision. It is possible for developing countries like India to ensure a sustainable path to poverty reduction and human development. This paper focuses on discussing (an overview) the significance of geospatial technology, GIS and its tools for good decision making in sustaining the environment.

**Keywords:** Geospatial Technology, Rural Development, Global Positioning System and Climate Change.

## **INTRA-DISTRICT DISPARITIES IN THE AVAILABILITY OF ELECTRICITY AMONG THE ELEMENTARY SCHOOLS - A CASE STUDY OF JORHAT DISTRICT OF ASSAM, INDIA**

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### **Abstract**

Electricity is one of the most important inventions of Man. The availability of electricity varies from region to region. The regions which lack electricity are facing lots of problems. One of the most important outcomes that have been affected by electricity is Education. However, among all Levels of Education, it is the Elementary Education whose access to electricity is in worst condition.

According to HRD Minister of India - Mr. R.P Nishank, "only 63.14 percent Elementary Schools of India have the Access to Electricity". Where he also mentioned - Assam has the least number of schools with electricity (24.28%) followed by Meghalaya (26.34%). On the other hand, Dadra & Nagar Haveli and Lakshadweep has cent percent schools with electricity. This implies that the availability of electricity in the Elementary schools of India varies from region to region. Jorhat district of Assam which is the locale of this study is also not different in this regard. There are 05 Education Blocks in Jorhat district and there exist huge variation in terms of availability of electricity. Therefore, this paper is an attempt to highlight the Intra - District Disparities in availability of electricity among the Elementary Schools of Jorhat.

**Keywords:** Elementary Education, Electricity, Intra-District Disparity.

## CHANGES IN LAND SURFACE TEMPERATURE DUE TO INDUSTRIALIZATION & URBANIZATION USING GEO-SPATIAL TECHNOLOGIES -A CASE STUDY OF BHILWARA CITY, RAJASTHAN

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### ABSTRACT

Land Surface Temperature (LST) is the radiant temperature of the land surface, absorbed by the objects. Although, it's different than actual atmospheric temperature but, it's somewhere linked with the atmospheric temperature. Bhilwara, is a textile city where industry has grown up gradually. Following the industry urbanization is also occurred & was increasing day by day. The study aims to track the impact of industrialization & urbanization changing the land surface temperature of the city. The mean temperature of the area was 31.17°C in 1999 which became 34.46°C in 2009 & 32.29°C in 2018. During the time period of 1999-2009 the temperature increased highly (3.29°C). Although, in the time period of 2009-2019, We can see that the temperature decreased 2.17°C. In the year of 2009 correlation between Normalized Difference Built-up Index (NDBI) & LST is very highly positive ( $R^2=0.995$ ). Where in 2018 found negligible positive correlation ( $R^2=0.230$ ). Strong correlation is observed between Land Surface Temperature & Normalized Difference Vegetation Index (NDVI). Urban population is also growing rapidly, the growth rate of urban population in India between 2001-2011 was 2.63%. The growth rate of Bhilwara was also increasing below the average (1.01%). No. of industries was registered in 1999 was 11859. But this number was decreased in 2009, was 627. Where The study suggests that how industrialization & urbanization controls the land surface temperature.

**Keywords :** Land Surface Temperature (LST), Radiant Temperature, Atmospheric temperature, Normalized Difference Built-up Index (NDBI), Normalized Difference Vegetation Index (NDVI).

## **IMPACT OF CORONA VIRUS (COVID-19) AND IT'S SOLUTION IN INDIA USING GEO-SPATIAL TECHNIQUES (TILL 9TH MAY, 2020, 5.30 PM)**

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### ***ABSTRACT***

Covid-19 corona virus is one of the most dangerous virus which is spread roughly throughout the world and now it is almost uncontrollable. The first information about this virus was coming from Yuan, China in the month of November, 2019. Then it spreads like a forest fire throughout the world. In India the first corona virus case was found in Kerala on 30th January, 2020. The person was coming from china in early January. The World Health Organization (WHO) has formally declared the outbreak of covid-19 to be a global pandemic. On 11th April, the large no of people tested positive for covid-19. On this pandemic situation the most important part is to stop the spread of this virus at any cost. In this condition there is no antibiotic for this virus, so being stopped from the spread of this virus is the only way and on this platform geo-spatial techniques are the best way to stop such kind of virus. Now a day's gis is the most valuable and reasonable trade in multimedia purposes. There are so many techniques like create maps, point out the hotspot zones, give them buffer area are use in this paper to stop this pandemic. Out of this there are so many ways to stop this virus using various tools of gis and the softwares likes ArcGis, QGis, ERDAS Imagine etc.

**Keywords:** Geospatial Techniques, Hotspot Zone, ArcGis, QGis, ERDAS

## CLIMATE CHANGE AND INDIA'S SUSTAINABLE DEVELOPMENT

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### Abstract

“Earth does not belong to man but man belongs to the earth”. Despite knowing this fact, human beings have always exploited earth for their own benefits. Moreover, growing population accompanied with increasing consumerism has necessitated depletion of resources at a faster pace resulting in climate change. Adverse consequences of climate change are now being felt all over the world and it is one of the major challenges facing the world today. Therefore, it becomes the responsibility of all nations to come together and take actions to ward off the threat of climate change. There is need to save mankind from the dangers of unsustainability arising from the changing climate. Having faced repercussions of climate change in the form of global warming, increasing sea levels, highly uncertain weather conditions and scarcity of water resources etc.; countries have agreed upon setting sustainable development goals which explicitly combine a goal on climate change. There are several dimensions of sustainable development and climate change is one of them. Excessive depletion of resources in the wake of technological innovations has been a great challenge for sustainable development. As a consequence of economic growth and urbanization, there has been significant increase in the demand for natural resources in India. The present paper focuses on the adverse impact of climate change on the growth and development of India. Initiatives undertaken at the country level as well as at the global level and its impact in the future has also been discussed.

### Key Words

Sustainable Development, Natural Resources, Technological Innovations, Climate Change.

## **SUSTAINABLE MICRO FINANCE AND RURAL DEVELOPMENT FOR INCLUSION**

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### **ABSTRACT :**

Micro-Finance in India is emerging as an effective instrument for poverty alleviation, women empowerment and sustainable development. In India, Non- Governmental Organization (NGO) led micro credit is proved as an effective and financially viable alternative to address rural poverty through the provision of credit without collateral, unleashing human creativity and endeavour of the poor people. Micro finance institutions are operating through banks linkage program aimed at providing a cost effective mechanism for providing financial services to the 'unreached poor'. Banks lend micro-credit through Self-Help Groups (SHGs) and to local Micro-Finance Institutions (MFIs) based on the philosophy of peer pressure and group savings as collateral substitute. In India, the micro-Finance concept has been successful in not only designing financial products meeting needs of the rural poor, but also in strengthening collective self-help capacities of the poor at the local level, leading to their empowerment. At macro level, the self help group is a useful instrument for savings mobilization and enhancing access to credit for the rural, unreached poor for their productive investment. In this paper an attempt has been made to describe how micro credit is effective and financial viable method of addressing sustainable rural development through provision of micro credit to rural poor for productive activities.

**KEYWORDS :** Empowerment, micro finance, micro credit, poverty alleviation, self help group, sustainable development

## **DIGITAL IMAGE CLASSIFICATION OF MANGO AND COCONUT FOR NATHAM TALUK, DINDIGUL DISTRICT USING SENTINEL-2A OPTICAL DATA**

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### **ABSTRACT:**

Remote sensing and GIS have been widely applied in agriculture. Several methods exist for mango classification of satellite data which can be utilized by the agricultural sector. This study focuses on using supervised classification approaches to classify mango and coconut plantations Natham Taluk, Dindigul district Tamil Nadu. Sentinel 2A acquired on 3<sup>rd</sup> February 2018 was used for image classification. Ground truth data collection was performed through the Taluk. The land use and land cover of the study area were distinguished into five classes viz., coconut, mango, cropland, settlements and water body.

Supervised image classification techniques such as Mahalanobis Distance, Maximum likelihood Classifier, Spectral angle mapper and Spectral correlation mapper methods were applied over the image. The accuracy measures, such as producer's accuracy, user's accuracy, overall accuracy and kappa coefficient were estimated. The results showed that maximum likelihood supervised classifier had the highest overall accuracy of 51.4% while other supervised classifier such as Mahalanobis Distance (32.4%), Minimum Distance classifier (42.86%), Spectral Angle Mapper (42.85%), Spectral Angle Mapper (42.85%) and Spectral Correlation Mapper (34.53%) had lower accuracy. It is suggested to utilize multi-date data for classification for crop discrimination utilizing the unique phenology of various crops for better accuracy.

**Keywords:** Mahalanobis distance, SAM, SCM, and Minimum distance classifier.

## **RECENT ADVANCES IN GEOSPATIAL TECHNOLOGY AND ITS ROLE IN RURAL DEVELOPMENT.**

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### **ABSTRACT:**

Geospatial technology is a blend of computer hardware and software to analyse and visualize spatial data. The mapping techniques employed in GIS has evolved into an intelligent mapping system that can support various fields of inquiry. It gives real time perspective upon project management. The economically advanced countries have already embraced Geospatial Technology to serve as a standard framework for project management. The economically advanced countries have already embraced Geospatial Technology to serve as a standard framework for project management. Geospatial technologies is a term used to describe the range of modern tools contributing to the geographic mapping and analysis of the Earth and human societies. These technologies have been evolving in some form since the first maps were drawn in prehistoric times. Computers allowed storage and transfer of imagery together with the development of associated digital software, maps, and data sets on socioeconomic and environmental phenomena, collectively called geographic information system .

**Keywords-** Geospatial technology, Mapping techniques, advanced countries, technologies, Computers.

# GIS BASED LAND INFORMATION SYSTEM: AN EMERGING TECHNIQUE OF CIVIL ENGINEERING

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## ABSTRACT

It is important to learn and use Geographic Information Systems and Remote Sensing data for our profession nowadays. Modern technologies like geo-data processing and earth observation data processing and analysis are needed for young researchers and students. This research work is dedicated to create a land information system over agricultural, rural and urban development areas. The role of civil engineers are evolving beyond that of a technical professional with recognition that civil engineers play a critical role in the planning, management and development of the infrastructure.

The profession covers many areas of interest and a broad range of expertise. As a result, civil engineers work with a voluminous amount of data from a variety of sources. One critical element of civil engineering as demonstrated by recent reports is the ability to visualize the impact that design decisions will have not only on the technical aspects but also on economic, social, environmental and political consequences. Geographical information system (GIS) enables users to visualize some of these factors and as such is becoming a critical tool for the civil engineering design. GIS technologies provide the tools for creating, managing, analyzing and visualizing the data associated with developing and managing infrastructure. GIS allows civil engineers to manage and share data and turn it into easily understood reports and visualizations that can be analyzed and communicated to others. It also helps organizations and governments work together to develop strategies for sustainable development. Thus, GIS is playing an increasingly important role in civil engineering companies, supporting all phases of the infrastructure life cycle.

**Keywords:** Civil Engineering, GIS, Visualization, Infrastructure, Mapping

## **ANIMAL HUSBANDRY OF ALBINO RAT; STRESS MANAGEMENT AND SPECIAL CARE FOR RESEARCH PURPOSES.**

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### **Abstract**

Animal husbandry is one of the major stuff in research area. Albino rat which is frequently uses for research purposes also known as laboratory rat. For survival and accommodation of albino rat special care need, maintenance of proper temperature, nutritious diet and stress management are the some major task to be considered. Higher temperature, lack of nutritious food, not able to maintain proper hygiene increases mortality rate in albino rat. Animal husbandry need for knowing proper behavior and living condition for experimental model in research field.

**Keywords:** Animal husbandry, accommodation, mortality, stress management

## AN IOT BASED VEHICLE HAILING FOR THE ENHANCEMENT OF LIVELIHOOD IN RURAL AREAS THROUGH WEB APPLICATION

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### **Abstract:**

This study is in detail about the furious intention to use mobiles and their applications for the establishment of government Services & emergency situation handling. Our problem identified in Villages that resists the enhancement of a village is their Livelihood. The Livelihood addresses all aspects such as Hospitality, Employment, and Occupation like Agriculture, Daily needs, Transport, Gas-Tele Communication lines and even cable connections along with ration goods. Hence our justification towards the increase in Livelihood of Villages will damn enhance both their income and prosperity in a gradual way. Our Solution in constructing a Vehicle hailing projects all around the village especially in major spots like bus stops, hospitals, street ends with a microphone to connect them with the service Centre at the rural end, which not only supports them in handling emergency cases and urgent transport needs but also enhances income of village by increasing their prosperity and employment status. Hence to give a one in all solution to this, we came up with a vehicle hailing concept that will support all common man at free of cost at his foot-step. The findings through demographics and Survey analysis, revealed that networking and performance parameters are the key tool determinants influencing the general & repeated use of our App. The results of this paper have proved practical contributions to concept of Vehicle hailing apps and practical resources to decision-makers in the development and establishment of Vehicle hailing in rural villages.

### **Key words**

*Mobile applications, Livelihood, Vehicle hailing, Demographics, Survey analysis*

## ROLE OF REMOTE SENSING IN GEOGRAPHY EDUCATION

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### Abstract :

In recent times new innovative technologies are utilized in the form of Information and communication technology (ICT) to make education child- centric that supports to reject the traditional method of recall and memorization and to focus more on practical aspects of the subject while nurturing creativity. In the modern era, these technologies are helpful in shifting the education from instructivism to constructivism and supports us in the update, storage and availability of large amounts of information, so that learners can evaluate and select relevant information for proper learning from time to time. In the field of geography, remote sensing is used as a new innovative communication technology that helps in the collection of large amounts of geographical data sets in different formats related to geographical features and phenomena which is beneficial for designing innovative geography lessons for the learners which are further used for the problem and action oriented learning. Remote sensing provides authentic and real-world learning materials. This has the potential to update the curriculum from time to time and which is also helpful in decision making for providing the solution to several geographical questions. Remote Sensing is a system to contribute information to its user and which is only helpful for us when this data is evaluated, interpreted and produced meaningful and valuable information. Using these procedures in the teaching-learning process gives rise to the subject interdisciplinary by dealing with real investigation and transfers this information to daily life situations and makes learning close to reality. Hence there is an urgent need to keep in mind the role of remote sensing in Geography education. This paper is focused on how the teachers incorporate remote sensing modules in the classroom for the teaching-learning process

**Keywords** -Information communication technology, Remote Sensing, Image, Geography Education

## WE ARE MARTIANS

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### Abstract

Today we are finding life on Mars and how it had destroyed in the past. This planet is a big mystery for human civilization from the ancient time. It looks very different at night in the whole sky because of its red color. It is a very unique planet. "Mars", Roman God of War. Greeks name it "Aries", Greek God of War. In ancient Babylon, the planet name was called "Nergal", God of death, destruction and war. This planet is associated with war in many ancient mythologies because of its red color. In a war lot of bloodshed happens which exactly looks like the surface of the Mars.

**Keywords:** Mars, Planet, Mystery, Mythologies.

## PROBLEMS DURING COVID-19 AND THEIR FUTURE INSIGHTS

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### ABSTRACT

India is a country with full of issues and problems today. One of the biggest problems is unemployment which is due to poverty and illiteracy. Covid-19 is now increasing at an alarming rate in India and is affecting the economy. To overcome the problem of this pandemic, the current issues must be solved and future planning should be done by the central as well as the state governments. The present paper will focus on the issues in India before this pandemic and the suggestions to improve those problems. This paper will also focus on the problems faced by the weaker section of the country such as daily wage workers, migrant workers etc. during this pandemic.

Keywords: Covid-19, Problems and Suggestions

## THE ECONOMIC EXPANSION OF PISCULTURE IN RURAL AREAS: ITS STATUS, ISSUES AND CHALLENGES

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### **Abstract**

India ranks second in fisheries and aquaculture. Fish farming is the cheapest as well as readily consumed food by most of the Indians. Farmers can cultivate fishes in their ponds, tanks and also prefer composite farming at any scale, which is found to be highly profitable because of the low input costs. The basic diet inputs like cow dung, poultry manure, ground nut oil cake, mustard oil cake and rice bran. However, it is crucial to maintain the quality of water, fish feed, and health management for optimizing production and productivity from inland fisheries and aquaculture in the country. For the economic expansion in rural areas, people rely on composite fish farming in pond culture system involving of Indian major carps (IMC) (*Catla catla*, *Labeo rohita* and *Cirrhinus mrigala*) and exotic major carps (*Hypophthalmichthys molitrix*, *Ctenopharyngodon idella* and *Cyprinus carpio*). Therefore, this kind of composite system is a practical modification of polyculture. Although, during culturing have to face certain challenges and issues. However, a pond ecosystem is ideal for optimizing internal resource utilization and thereby a means of increasing productivity. Hence, pisciculture technique we can culture compatible fish species of our interest. Thus, the farmers residing in rural areas can increase the economy and also helps the young unemployed youth to gain employment which in turn leads to expansion of economy in rural areas.

**Keywords:** Composite culture, Pisciculture, Rural areas, Carp, Fisheries.

## **A STUDY ON NEW EMPLOYMENT OPPORTUNITIES IN RURAL AREA WITH SPECIAL REFERENCE TO NORTH MAHARASHTRA REGION**

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### **Abstract:**

Increase of new employment opportunity has been a vital purpose of progress planning in India. There has been a considerable growth in employment over the years. On the other hand, a relatively privileged growth of populace and labour force has show the way to a boost in the number of idleness from one period to another. The extraordinary promise of the current Government of India to sincerely deal with the need for employment creation is a favorable prospect to put into action approach for engender full employment in the rural areas. The most important aspire of rural persons is to get hold of good and well-paid employment chance. This research study observes the approaching for sector-specific productivity growth, labour, credit markets, and infrastructure to contribute to the development of stable, well-paid employment in rural areas of rural areas.

The major purpose of this research study is to obtain a proficient perceptive of employment opportunities, in which rural persons are occupied. The major areas that have been taken into account are, environment of unemployment in rural area of North Maharashtra region, types of employment opportunities in rural group of populace, factors persuade people to get engaged in employment opportunities, and factors influencing the acquisition of employment opportunities.

**Keywords:** Employment Opportunities; Productivity growth Expansion; Development

# GROUNDWATER RESOURCE DEVELOPMENT AND ESTIMATION IN EKOWE COMMUNITY

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## ABSTRACT

Groundwater is an important and only secure source of water supply in Ekowe, an oil producing rural community in Bayelsa State, Nigeria's Southern Ijaw Local Government Area (SILGA). Rapid urbanization resulting in the influx of people into the city due to the location of a Federal Polytechnic and the subsequent fresh water shortage due to increased oil production and groundwater contamination. For sustainable community water resources growth, quantitative estimation of available water supplies in the area and prevention of water or piezometric level fluctuations is needed. Using cable tool and rotary techniques, boreholes are built in the community to fulfil the water supply needs. Many factors influence the cost of building water borehole at Ekowe, including: the type of material used (case and screen), the size of the borehole, the type of construction and the availability of clean water. This study shows that construction of a borehole in the community is costlier due to its riverine location. Displayed information on the cost of borehole construction in the region indicates a significant rise over the years. Monitoring of boreholes and aquifers as well as maintenance of boreholes, pumps and accessories are necessary for long economic service life, but these are found to be poorly served in SILGA.

**Keywords:** Borehole Drilling, Groundwater Reservoirs, Maintenance, Piezometric Level.

# **GROUNDWATER IN RURAL DEVELOPMENT: FACING THE CHALLENGES OF SUPPLY AND RESOURCE SUSTAINABILITY**

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## **ABSTRACT**

Groundwater is of major importance to rural development in many countries of the world. As a result of its widespread distribution, low development cost, and generally excellent quality, it has been the fundamental resource allowing the rapid development of improved domestic water supplies for the rural population and in many areas has also supported a major increase of highly productive agricultural irrigation.

Groundwater resources are thus vital for meeting an array of basic needs, from public health to poverty alleviation and economic development. Because of high rates of abstraction required for irrigation, however, in some areas there is significant concern about sustainability of the resource base, because of falling groundwater tables and near irreversible aquifer deterioration through saline intrusion. There are also additional sustainability concerns as a result of the increasing incidence of groundwater pollution from over-intensive or inadequately managed agricultural cultivation practices.

This report is based on reviewing the evolving situation during the 1990s in a substantial number of developing nations. It aims to raise awareness of the key linkages between groundwater and rural development, and to identify appropriate technical and institutional approaches for improving the operational reliability of water wells and the sustainability of groundwater resources as a whole

## **RURAL DEVELOPMENT AND ENVIRONMENTAL KINETICS AND MACHESTIC QDC**

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### ABSTRACT

Economic momentum of underdeveloped countries derived from the generation and application of their endogenous knowledge is an essential factor toward achieving social welfare. Thus, it is important to understand the development of science and technology within these underdeveloped countries, how the application of that development can address problems in agriculture and food needs, and development can offer sustainable options for growth and optimization. In addition, many small farmers in underdeveloped countries are already planting crops based on biotechnological products, which is significant in terms of how these activities influence the development of their lives, particularly with respect to the generation of policies aimed at farming areas. This paper is an exploratory study on the perceptions of peasant producers of the effects of biofertilizers on their environment and their lives. so that's present environment compound has been reported with quonolium dicromate in aqueous acetic mediums in present of mineral acid. The active species of QDC was passulated based on kinetics data. Machenistic rate law was derived.

## ग्रामीण प्रदेशों में जल की गुणवत्ता : प्रतीक अध्ययन में सुदूर संवेदन तथा भू-स्थानिक तकनीक का उपयोग

दिनेश कुमार

सहायक प्राध्यापक, शासकीय महात्मा गांधी स्मृति महाविद्यालय ए इटारसीए मध्य प्रदेश  
पोधछात्र ःच्छए भूगोल विभाग काषी हिन्दू विष्वविद्यालय वाराणसी

नसंतकपदमौण्डीन2014 / हउंपसण्बवउद्ध

डॉ0 राकेश कुमार

पुर्व षोधछात्र भूगोल विभाग काषी हिन्दू विष्वविद्यालय वाराणसी ,ताहंनजंउडीन / हउंपसण्बवउद्ध

संक्षिप्तिकी ;।इजतंबजद्ध

जल संसाधन एक प्रमुख प्राकृतिक संसाधन है जो सभी संसाधनों का आधार है तथा जल के उपस्थिति के कारण अन्य प्राकृतिक संसाधनों का दोहन एवं संरक्षण सम्भव है। जल का सर्वाधिक उपयोग सिंचाई में (70 प्रतिशत) किया जा रहा है, द्वितीय स्थान उद्योगों (23 प्रतिशत) का है जबकि घरेलू तथा अन्य उपयोगों में (7 प्रतिशत) जल का उपयोग किया जाता है। आज प्रत्येक जगह जल के गुणवत्ता के बारे में बात हो रही है। देश भर में 400 से अधिक जिलों में भू-जल लगातार जहरीला होता जा रहा है। इन क्षेत्रों के पानी में आर्सेनिक, फ्लोराइड, नाइट्रेड, लोहा, सीसा, कैडमियम, क्रोमियम जैसे खतरनाक पदार्थ पाये गये हैं। ताजा आँकड़ों के मुताबिक बिहार, उत्तर प्रदेश, झारखण्ड सहित दस राज्यों के 89 जिलों के भू-जल में आर्सेनिक की मात्रा 0.05 मिलीग्राम प्रति लीटर से अधिक हो गयी है। मिनिस्ट्री ऑफ हेल्थ ऑफ इण्डिया (डण्ण्ण) तथा युरोपियन समुदाय (न्ण्ण) के अनुसार पेय जल की गुणवत्ता विभिन्न प्राचालो के मानक द्वारा निर्धारित होता है। जिसमें पी एच ;चश्छए चालकता ;ब्वदकनबजपअपजलद्धए रंग ;ब्वसवनतद्धए घुलित ऑक्सीजनए कठोरता;भ्तकदमेद्धए एलुमिनियम ;।स्द्धए अमोनिया ;छभद्धए आर्सेनिक;ौद्धए बोर्ॉन;ठद्धए कैडमियम ;ब्वद्धए कॉपर;ब्वद्धए क्रोमियम ;ब्वद्धए ऑयरन ;थ्मद्धए लेड;च्छद्धए सोडियम ;छद्धए जिंक;दद्धए क्लोराईड;ब्वद्धए फ्लोराइड ;थ्द्धए सल्फेट;ब्वद्धए नाइट्रेड;छद्धए प्रमुख है। ग्रामीण प्रदेशों में जौनपुर जनपद ;25ह 26' से 26ह 11'छ तथा 82 ह 8' से 83 ह 5'द्ध गंगा घाटी के पूर्वी उत्तरी प्रदेशस्थ वाराणसी मण्डल के पश्चिमोत्तर भाग में अवस्थित है। जौनपुर जनपद का भौगोलिक क्षेत्रफल 4038 वर्ग किमी0 है, 2011 के जनगणना के आधार पर कुल जनसंख्या 4494204 थी। प्रस्तुत अध्ययन प्रतिदर्शों के आधार पर किया गया है। प्रतिदर्श का विश्लेषण मृदा विज्ञान एवं कृषि रसायन विभाग का0 हि0 वि0 वि0 वाराणसी में जल परीक्षण कराया गया है तथा इसके रासायनिक परिणामों को सारणीयकृत किया गया है तथा इन्ही के आधार पर सम्पूर्ण घुलित ठोस, पी0एच0 मूल्य, विद्युत चालकता, सोडियम, मैग्निशियम, क्लोराईड, बाईकार्बोनेट, और कार्बोनेट के आइसोप्लेथ मानचित्र बनाये गये हैं। अमेरिका के यू0 एस0 सेलिनिटी डायग्राम के आधार पर जनपद में भू-जल गुणवत्ता का विश्लेषण एवं मानचित्रण। तब ळै 10<sup>ण2</sup> एवं स्तकें प्ंहपदम 14 से किया गया है। जनपद में सम्पूर्ण घुलित ठोस का विस्तार 204.8 पी0 पी0 एम0 से 1100.0 पी0 पी0 एम0 ए सतही जल के क्लोराइड का संकेन्द्रण 21.3–92.3 पी0 पी0 एम0 ए सतही जल के कार्बोनेट का संकेन्द्रण 9.6–90 पी0 पी0 एम0ए कार्बोनेट का संकेन्द्रण 115.9–207.4 पी0 पी0 एम0ए वैद्युत चालकता 320 माइक्रो म्होज /से0मी0 से 710 माइक्रो म्होज /से0मी0 के बीच पायी गयी तथा जौनपुर जनपद में सतही जल के पी0 एच0 का संकेन्द्रण 7.3–8.2ए सोडियम संकेन्द्रण 44.1–98 पी0 पी0 एम0 के मध्य है।

## AN ANALYSIS ON GEOGRAPHIC INFORMATION SYSTEM IN INDIAN SCHOOL CURRICULUM: OPPORTUNITIES AND CHALLENGES

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Jointly Organized by Geospatial Mapple, Lucknow, U.P. India in Association with Department of Geography, MLK (PG) College, Balrampur, U.P. India

## Abstract

Individuals were always enamoured by their home — the Earth. Today in India, the National Curriculum Framework for School Education -2000 (NCFSE 2000) establishes GIS, a geographical feature, as part of the higher secondary level in 2000. The geographical perspective addresses all the relevant problems of our times, as all these issues have a geographical component. GIS offers a powerful toolkit for decision-making which can be used in education management, education and education policies. GIS helps students understand content in a variety of disciplines, not only in geography, but also in history, mathematics, language arts, environmental studies, chemistry, biology, civics, and much more. In the effective use of GIS in the geography classroom, critical thinking has a primordial role. GIS also contributes to the development of analysis, synthesization and evaluation capabilities. The logical, mathematical, linguistic, spatial and interpersonal intelligence of students can be improved in this way. GIS is used as a problem-solving, inquiry-orientated, standard-based task set that includes fieldwork and offers increasingly demanded career pathways. The study's objective is to analyse to what extent, along with its opportunities and challenges, the GIS has been an integral part of the Indian school curriculum. The current study shows that the lack of GIS trained teachers in schools is one of the major challenges. There must be a paradigm shift regarding the notion of the role of teacher. She has to move from being a "teacher" to being a guide or facilitator. The study found that it is the responsibility of society to provide students and teachers with the opportunity to achieve the ultimate objective in all subjects and, undoubtedly, geography is one of them. Tinker (1992), Palladino (1994), and Audit & Abegg (1996), who were the leading academicians, conducted the first research on education with GIS and underlined the positive relationships between education with GIS and the development of spatial skills of the students.

## ENVIRONMENTAL POLLUTION – CONTROL MEASURES

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**Abstract:** Environment pollution is a wide-reaching problem and it is likely to influence the health of human populations to a greater extent. This paper provides the insight view about the environment pollution in the perspective of air pollution, water and land/soil waste pollution on human by diseases and problems, animals and trees/plants. These kinds of pollutions are not only seriously affecting the human by diseases and problems but also the animals and trees/plants. Urbanization and industrialization along with economic development have led to increase in energy consumption and waste discharges. Environmental pollutants have various adverse health effects from early life some of the most important harmful effects are perinatal disorders, infant mortality, respiratory disorders, allergy, malignancies, cardiovascular disorders, increase in stress oxidative, endothelial dysfunction, mental disorders, and various other harmful effects. Therefore it is time to take action and control the pollution. Otherwise, the waste products from consumption, heating, agriculture, mining, manufacturing, transportation, and other human activities will degrade the environment. Still time left in the hands of global institutions, governments and local bodies to use the advance resources to balance the environment for living and initiates the breathe intellectuals to live friendly with environment. As effective reply to contamination is largely based on human appraisal of the problem from every age group and contamination control program evolves as a nationwide fixed cost-sharing effort relying upon voluntary participation. Wild-type organisms have a slower degradation rate of hazardous materials. As the responsible citizens of a country and a good human being we all should follow some measures that would help to continue this reduction in pollution. we all should encourage each other to continue with good habits to reduce the degradation of the environment by following the rules laid down by the government. Spread the word and educate others to save the environment. It can be done through social media or through any other effective channel of mass communication.

**Key words:** *Environment, Pollution, Air, Water and Noise Pollutions.*

## THE COVID 19 AND MIGRANT WORKERS: A PEERLESS CHALLENGE FOR INDIA'S FUTURE

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**Jointly Organized by Geospatial Mapple, Lucknow, U.P. India in Association with Department of Geography, MLK (PG) College, Balrampur, U.P. India**

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## ABSTRACT

The COVID 19 pandemic has created multiple challenges for migrant workers. Indian economy is directly or indirectly dependent on over more than 400 million migrant labours. Most of them are relocated from rural to urban areas for a work and they are providing key contributions to growth economic sectors of construction, manufacturing, transporting, and various other urban services. But the crisis and the lockdown compounded difficulties to access their livelihoods. Most of them are being now jobless due to the economy has collapsed during the lockdown and due to the COVID 19. However, taking this COVID 19 pandemic situation as an opportunity to reform Indian economy and making gradationally workers self-reliant / self-dependent to access their livelihoods at their own home-village instead of depending only on a job requirement and availability, in the rural areas various schemes like National Skill Development, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Swadeshikaran (Indigenization), and Atmanirbhar Bharat scheme have been provided.

**Keywords:** Migrant workers, Challenges, Opportunities, Skill development, Swadeshikaran, Atmanirbar Bharat

## **A STUDY ON NEW EMPLOYMENT OPPORTUNITIES IN RURAL AREA WITH SPECIAL REFERENCE TO NORTH MAHARASHTRA REGION**

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### **ABSTRACT**

Increase of new employment opportunity has been a vital purpose of progress planning in India. There has been a considerable growth in employment over the years. On the other hand, a relatively privileged growth of populace and labour force has show the way to a boost in the number of idleness from one period to another. The extraordinary promise of the current Government of India to sincerely deal with the need for employment creation is a favorable prospect to put into action approach for engender full employment in the rural areas. The most important aspire of rural persons is to get hold of good and well-paid employment chance. This research study observes the approaching for sector-specific productivity growth, labour, credit markets, and infrastructure to contribute to the development of stable, well-paid employment in rural areas of rural areas.

The major purpose of this research study is to obtain a proficient perceptive of employment opportunities, in which rural persons are occupied. The major areas that have been taken into account are, environment of unemployment in rural area of North Maharashtra region, types of employment opportunities in rural group of populace, factors persuade people to get engaged in employment opportunities, and factors influencing the acquisition of employment opportunities.

**Keywords:** Employment Opportunities; Productivity, growth; Development

## **Role of Geospatial Technology in eGovernance**

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### **Abstract:**

Geospatial Technology is an emerging field of study that includes Geographic Information System (GIS), Remote Sensing (RS) and Global Positioning System (GPS). It enables us to acquire data that is referenced to the earth and used it for analysis, modelling, simulations and visualization and to make informed decisions based on the importance and priority of resources most of which are limited in nature. Geospatial technology is used to create intelligent maps and models that may be interactively queried to get the desired results in a STEM application or may be used to advocate social investigations and policy based research. It may also be used to reveal spatial patterns that are embedded in large volumes of data that may not be accessed collectively or mapped otherwise. Geospatial technology has become an essential part of everyday life. It is used to track everything from personal fitness to transportation to changes on the surface of the earth. It is one of the emerging technologies for today's world. India today recognizes that empowering its citizens and modernizing governance is imperative for future nation-building. With a population of more than 1.2 billion, spread over 3,290,000 km<sup>2</sup>, India, is composed of more than 600,000 villages and 7000 cities which means that it features varied geography with a rapidly evolving complex social and economic character. Dealing with ways and methods to comprehend social and economic challenges, India as a democracy, aims to bring a good quality of life to all its citizens by aiming to breach the chasm of disparity in economic and social character. Technology like geospatial technology plays vital role in eGovernance to fulfil goals of country. This paper throws lights on various geospatial technology used in eGovernance by Indian government.

**Keywords-** Geospatial,GIS,GPS,IMT,Digital India

## Acquisition of Employment Opportunities for Rural Individuals

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### ABSTRACT:

Employment opportunities are regarded as indispensable particularly among the individuals belonging to the rural community. In rural areas, individuals are primarily engaged in agriculture and farming practices. Apart from these, they are employed in small scale industries or get engaged in the handicrafts or other products. The types of employment opportunities in rural community are, agriculture sector, education sector, healthcare and medical, production of handicrafts, production and marketing of food items, factories and industries, cultural performances, tea stall and restaurants, repairing machines and technologies and vocational occupations. These are numerous type of employment opportunities, in which rural individuals are engaged in, on the basis of their skills and abilities and interest areas. When they are unable to find employment opportunities in rural areas, then they migrate to urban communities to look for better livelihoods opportunities. Children belonging to rural communities also get engaged in employment opportunities of various types. When they attend schools, then they normally get engaged in employment after school hours, on a part-time basis. On the other hand, when they do not attend schools, then they are usually employed on full-time basis. The factors influencing the children to get engaged in employment opportunities are, poverty, lack of interest in studies, occurrence of conflicts and disputes, discriminatory treatment, development of interest and enthusiasm, developing communication skills, coping up with criminal and violent acts, empowerment opportunities, generating income for education and meeting other expenses.

**Keywords:** - Employment; Opportunities; Rural; Community; empowerment

## AN IOT BASED VEHICLE HAILING FOR THE ENHANCEMENT OF LIVELIHOOD IN RURAL AREAS THROUGH WEB APPLICATION

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### ABSTRACT

This study is in detail about the furious intention to use mobiles and their applications for the establishment of government Services & emergency situation handling. Our problem identified in Villages that resists the enhancement of a village is their Livelihood. The Livelihood addresses all aspects such as Hospitality, Employment, and Occupation like Agriculture, Daily needs, Transport, Gas-Tele Communication lines and even cable connections along with ration goods. Hence our justification towards the increase in Livelihood of Villages will damn enhance both their income and prosperity in a gradual way. Our Solution in constructing a Vehicle hailing projects all around the village especially in major spots like bus stops, hospitals, street ends with a microphone to connect them with the service Centre at the rural end, which not only supports them in handling emergency cases and urgent transport needs but also enhances income of village by increasing their prosperity and employment status. Hence to give a one in all solution to this, we came up with a vehicle hailing concept that will support all common man at free of cost at his foot-step. The findings through demographics and Survey analysis, revealed that networking and performance parameters are the key tool determinants influencing the general & repeated use of our App. The results of this paper have proved practical contributions to concept of Vehicle hailing apps and practical resources to decision-makers in the development and establishment of Vehicle hailing in rural villages.

**Keywords:** Demographics, Livelihood, Mobile applications, Survey analysis, Vehicle hailing.

## ANALYSIS OF LAND USE CLASSIFICATION AND LAND COVER CHANGE DETECTIONS USING SATELLITE IMAGERY IN BIDA, NIGER STATE

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### ABSTRACT

Many methods have been used to map Land use and land cover (LULC) patterns and changes such as satellite observations, including traditional terrestrial mapping, as well as satellite-based mapping. This study used remote sensing classification technique and GIS data to determine LULCC for a period of 29 years (1990-2019)., the classified images in the ENVI 5.3 were converted to vector (ESRI shapefile) and were exported to ArcGIS 10.6.1 in raster grid for map preparation. The changes in the land used /land cover were calculated using change detection statistic in ENVI 5.3. The change detection analysis revealed change in the LULC types in Bida from 1990-2019. The results show very big change in land cover pattern between 1990 and 2019 in the area. Most of the large vegetation cover present in the area in 1990 were observed to be absent in 2019 due to human activities. It was also observed that areas that were formerly vegetal covered is now cover with buildings, this shows that a large area of vegetal cover has been lost between 1990 and 2019 in the area. The study recommend that High resolution imagery such as IKONOS and Quick Bird are required for a clearer view of the land use/land cover condition, The use of satellite remote sensing and geographic information system techniques for adequate study of land use and land cover should be encouraged in the study area, so that research on issues regarding the physical environment can be carried out effectively.

*Keywords: Land Use, Land Cover, Remote Sensing, Geographical information system, Change Detection,*

## ANIMAL HUSBANDRY

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### ABSTRACT

Animal husbandry helps in the proper management of animals by providing shelter, proper food and protection against diseases. There are various techniques used in animal husbandry like castration, disbudding, dehorning, branding and spaying. There are various programmes and schemes for animal husbandry such as NDDP (National Programme for Dairy Development), DEDS (Dairy Entrepreneurship Development Scheme), DIDF (Dairy Processing and Infrastructure Development Fund) etc. Animal husbandry is the branch of science practiced with the rearing of, care for, and breeding of animals like cattle, sheep, goats, horses, pigs etc. It helps in developing high yielding breeds of animals by crossbreeding. This increases the production of various food products such as wool, eggs, meat, milk, etc. Animal rearing is important for humans as they contain a wide range of eatables having high nutrient values. The important of animal husbandry further extends to another set of animals that are important to humans for eggs and meat such as goose, ducks, hens, goats, fish etc. Livestock is also used to control the growth of weeds on agricultural lands. Animal husbandry began in the so-called Neolithic Era, around 1,000 years ago, when animals were first domesticated, and onwards, antedating farming of the first crops. By the time of early civilisations such as ancient Egypt, cattle etc were being raised on farms. Traditionally, animal husbandry was part of the subsistence farmer's way of life, producing not only the food needed by the family but also the fuel, fertilizer, clothing, transport and drought power. In the traditional system of transhumance, people and livestock moved seasonally between fixed summer and winter pastures; the summer pasture was up in the mountains, the winter pasture in the valleys. Animals can be kept extensively or intensively. Depending on the types of farming there are various types of animal husbandry-: Horticulture, Poultry farming, Dairy farming, Pisciculture, Apiculture, Sericulture etc.

## GLOBAL WARMING – CAUSES, EFFECTS AND SOLUTIONS

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### ABSTRACT:

Global warming is perhaps the most important environmental problem in the world today. Levels of greenhouse gases are increasing in the atmosphere due to human activities, and are changing the composition of the atmosphere and global warming. Climate scientists agree that human activities such as the burning of fossil fuels contribute to the problem. Fossil fuels are being continuously used to produce electricity. The burning of these fuels produces gases like carbon dioxide, methane and nitrous oxides which lead to global warming. Accumulation of high concentration of carbon dioxide has led to the phenomenon of global warming (greenhouse effect), and has resulted in increased earth's temperature. Deforestation is also leading to warmer temperatures. There are various activities taking place which have been increasing the temperature gradually. The main cause of global warming can be unsustainable human activities that increase the accumulation of greenhouse gases. The hazard of global warming is continuously causing major damage to the Earth's environment. Living Organisms have to make efforts to maintain health by recognizing and resolving abnormal situations such as the presence of invading microorganisms. Global warming severely affect ecosystems and disturb ecological balance. Rising temperatures are affecting wildlife and their habitats. As temperatures change, many species are on the move. Some butterflies, foxes, and alpine plants have migrated farther north or to higher, cooler areas. Precipitation (rain and snowfall) has increased across the globe, on average. Yet some regions are experiencing more severe drought, increasing the risk of wildfires, lost crops, and drinking water shortages. Sea levels are expected to rise between 10 and 32 inches (26 and 82 centimeters) or higher by the end of the century. Hurricanes and other storms are likely to become stronger. Floods and droughts will become more common. Most human beings are still unaware of global warming and do not consider it to be a big problem in the future. To embark upon these problems, some remedial steps must be timely taken which include but are not limited to the use of renewable sources of energy and stopping deforestation. Innovative solutions must be brought forward to end this hazard once and forever.

***Key words: Environment, Global warming, Greenhouse gases, Temperature, Living Organisms***

## **‘TOURISM-LED LAND CONVERSION: A GIS BASED STUDY OF KODAGU DISTRICT, KARNATAKA’**

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### **ABSTRACT:**

Tourism is considered as ‘smokeless’ industry and sometimes considered as ‘eco-friendly industry’. It is one among the highest income generating industries; playing a major role behind the growth of number of economies. The local culture and societies are also influenced by this sector to a large extent. Thus, tourism sector is linked with the three pillars of sustainable development; namely economy, ecology and society. Land is the base of all the environmental, socio-cultural and economic activities of any region. The sustainability depends upon how well the land is used for different activities. Tourism is a ‘land based industry’. The efficient usage of available land resources define the present and future of the sector and the sustainability of the region. Infrastructural development for tourism such as buildings, transportation, accommodation, tourist sites, activity centres can alter the land usage of the tourist destination. It may affect the local environment, economy and the socio-cultural aspects to a great extent. Thus, it is important to look after the tourism-led land use change and impacts with proper care. Kodagu is one of the fragile eco regions; under international considerations as part of ‘Western Ghats’ located in Karnataka. It’s also a famous ‘hill tourist centre’ in Southern India. Considerable growth of tourism is bringing about a lot of change in the land usage pattern in this small agrarian district. ‘Tourism-led land conversion is one of the major issues in Kodagu with the need of immediate care. This research focused on ‘tourism led land conversion’ in Kodagu over two decades and highlighted the agricultural land conversions with the help of GIS mapping and available secondary sources. The outcomes of this research would facilitate the planners and policy makers in achieving sustainable land use planning

**Keywords:** Land use, Land Conversion, Sustainable Development, Kodagu district, GIS.

## A STUDY ON ISSUES AND CHALLENGES OF RURAL DEVELOPMENT IN INDIAN ECONOMY

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### ABSTRACT

The Rural Development refers to continuous and comprehensive socio-economic process, attempting to improve all aspects of rural life. Rural development has traditionally centred on the exploitation of land-intensive natural resources such as agriculture and forestry. However, changes in global production networks and increased urbanization have changed the character of rural areas. Increasingly tourism, niche manufacturers, and recreation have replaced resource extraction and agriculture as dominant economic drivers, rural development is also characterized by its emphasis on locally produced economic development strategies. In contrast to urban regions, which have many similarities, rural areas are highly distinctive from one another. Rural development is a comprehensive term. It essentially focuses on action for the development of areas outside the mainstream urban economic system. The Rural development generally refers to the process of improving the quality of life and economic welfare of people living in relatively isolated and sparsely populated areas. India is emerging as a major power economy and our cities and urban centres are beginning to display marks of affluence. Economic development in any country to a greater extent depends on rural development and it assists the economy to grow and sustain. In the rural areas agriculture is the main source of livelihood to the people. There is a direct relationship between agriculture production, income and the demand for industrial goods. People living in the rural areas have to struggle to earn wages or are forced to migrate to urban areas. Rural development means an action-plan for the economic and social upliftment of rural areas. It aims at improving the quality of life of people living in villages. It focuses on the action for the development of areas that are lagging behind in the overall development of the village economy. The research paper shows to the issues and challenges facing the rural areas, objectives, Importance, Strategies and Sustainable development in India and suggest ways to overcome these challenges and to create opportunities of gainful self-employment for the rural families, especially disadvantaged sections, ensuring sustainable livelihood, enriched environment, improved quality of life and good human values.

**Keywords:** Introduction of Rural Development, Importance, Objectives, Issues and Challenges, Strategies and Sustainable Development.

**RECENT TRENDS AND DEVELOPMENT IN GEOSPATIAL TECHNOLOGY:  
A KERALA PERSPECTIVE**

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**ABSTRACT**

Geospatial technology or Spatial information technology is a major multi-disciplinary field that is gaining prominence in recent decades as it is used for different applications of topographic mapping, Hydrology, Transportation, Disaster management, Agriculture, Rural and Urban development. The field of Geospatial technology is constantly evolving and its dynamicity is owing to the newer technological changes are happening in its branches of remote sensing, GIS (Geographic Information System), Photogrammetry, Global Positioning System and Aerial photography as well as the dynamicity of certain disciplines. The present study area is the state of Kerala in India where the Geospatial technology is gaining prominence as it is used for acquiring, mapping, storing and analyzing of various applications of public health, disaster risk management, urban and rural development, transportation, education and this study also gives an insight into the newer technologies inducted into the mapping prospects of Kerala.

The data was collected mainly from secondary sources and they are government publication, reports and government websites like Kerala GeoPortal. The result of the study shows that geospatial technology has been immensely used in Kerala for various applications of Disaster risk management, Public health, Transportation, Education, Utility mapping, Land use mapping, Tourism, Rural and Urban development and the field of Geospatial technology have also developed due to the advent of various technological aspects and tools like LiDAR (Light Detection and Ranging) remote sensing, Drone Surveying, GPS (Global Positioning System) mapping, Web GIS and the most important of all is the development of a Web Geospatial data directory called the Kerala GeoPortal which contains Geospatial data of the Kerala state. The Geospatial data has thus been fruitful for the successful implementation of policies and Programmes in Kerala.

Keywords: Photogrammetry, Kerala GeoPortal, Geospatial data, Web GIS

## **DIVERSITY OF HEAVY METALS IN PONDS OF RAIPUR CITY: IS WATER QUALITY AN ISSUE FOR LIVELIHOOD?**

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### **Abstract**

The current paper attempted to understand the presence of heavy metals in water of five selected ponds from Raipur city in four seasons as production of fish has been reported to reduce in few years. Environment change, water stress & crisis and resilience are a burning issue now a days. With rapidly changing urbanization and uncontrolled pollution, cities face water quality problems in the ponds and affecting human health and fisheries at city level. The reason accountable is improper sewage and water management practices and system in the urban areas. However, Ponds as an ecosystem plays a crucial role in in the urban area of many cities as a livelihood option through fisheries. To understand the issue, five major ponds are selected randomly from each direction i.e. North, South, East and West, of the city and samples are collected in four different seasons across the year 2016. One pond is selected randomly from the central part of the city. Presence of heavy metals such as Fe, Zn, Mn, Cu, Cd, Co, Pb and Ni are tested and analysed in ICP-MS.7700 Series ICP-MS, Agilent Technologies. Findings suggest that the contaminations of heavy metals are found in all seasons in all the ponds which is not seen earlier. It is a negative consequence of urbanisation and mismanagement. Hence, government should conduct more research to improve the water quality and reduce contamination in the city.

**Key words:** Environmental pollution, ponds, heavy metals, water quality

## STRENGTHENING PARENTS AND STAKEHOLDERS THROUGH INCLUSIVE COMMUNICATION AND INITIATIVE

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### ABSTRACT

**Purpose:** This study aimed to determine the level of participation of parents and stakeholders in the implementation of Gulayan sa Paaralan Program and to identify the factors that affect the participation with the end view of proposing an action plan to strengthen parents and stakeholders through communication and initiative.

**Design/Methodology:** The descriptive method of research was utilized in this research with Homeroom PTA officers in Bigain National High School as respondents. The survey questionnaire and interview were used to gather data to achieve the purpose of the study.

**Findings:** The study implied that the parents' and stakeholders' participation level in the implementation of Gulayan sa Paaralan (School Gardening) was low. The parents and stakeholders had lack of knowledge about how they would participate in the GPP which revealed that the advocacy campaign was not maximized to disseminate the information. Moreover, the parents had hectic schedule and perceived that having just volunteered needs for the school garden was enough just to be considered that they have participated. Besides, sponsoring financial aid satisfied them that they have accomplished their part in the school.

With this, the proposed action plan was designed to strengthen parents' communication and initiative in School Gardening Program activities.

**Value:** This study will be beneficial for the students to achieve a conducive environment with healthful concerns, and for teachers and school administrators to serve as guide in implementing the home-school link for better learning environment. This will also be helpful for the parents for them to know their roles as external stakeholders of the school - all for the sake of learners.

**Key words:** Parents, Stakeholders, Initiative, Inclusive Communication, Gulayan sa Paaralan Program (School Gardening), Strengthen

## ASSESSMENT OF SOIL AND WATER RESOURCES IN HISAR DISTRICT USING GEO-SPATIAL TECHNOLOGY

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### ABSTRACT

Optimal and proper management and utilization of soil and water has very broad for the whole world in common and the developing countries like India in order to attain as these have dealing with a difficult problem over past few decades. The alarming rate of depletion and degradation of water and soil resources has been accelerate at an alarming rate in scrutiny of the increasing population pressure. Soils are the main vital non-renewable natural resources that are the base of all practices monitoring production of agriculture. Underground water depth information and soils play a big role in assessing of landuse and suggesting alternate of different landuse in any study area. Underground water also defines water available in the saturation zone that is parted from the surface of earth by permeable zone of aeration.

Hisar is one of the important and largest agriculturally potential districts of Haryana has wide variation in soils, landforms and land degradation-desertification, wind erosion, water logging, salinity, alkalinity and soil fertility. The present research of assessment of soil and water resources in Hisar district is relevant to the needs of the immediate environment because for the sake of development has the worst impact on not just the environment. Thus the novelty of the present research is that the productivity level of different crops is depending on soil and water resources.

Key Word: Soil and Water resources, Remote Sensing, GIS

## APPLICATION OF GIS IN MAPPING OF PRIVATE SCHOOLS IN BIDA LOCAL GOVERNMENT AREA OF NIGER STATE

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### ABSTRACT

The study examined the spatial location of private schools within Bida local Government area of Niger State with view to providing a framework for effective placement of students. Primary and secondary data were used for the study. Primary data was collected using questionnaire and a hand-held GPS receiver uses to capture the coordinate points of schools and other relevant data. Secondary data include administrative map, population figures of both students and Teachers, Names and addresses of the secondary schools in the study area. School location, number of private schools in each ward and the total area were used to determine the pattern of distribution of private schools in the study area. Settlements, roads, school's location, number of secondary schools, ward and school enrolments were used to carry out analysis to determine the socio-economic standard of the schools. The result shows that out of the 63% of the schools whose statistics were fully obtained (46) 58% were under populated while only (4) 5% were over populated

*Keywords: Geographical Information System, Mapping, Private Schools, GPS, Teachers*

**ASSESSMENT OF ELECTRIC POWER CONSUMPTION OF INDIA USING NIGHT-TIME  
LIGHTS: INFERENCES  
WITH ECONOMIC DEVELOPMENT**

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**ABSTRACT**

Night-time light remote sensing is used to observe and analyze human impact on the earth's surface. DMSP-OLS was the well-known source of night-time light data until the release of a newer version of night-time light satellite SNPP-VIIRS which has several advances over DMSPOLS. Many studies are conducted on the use of nighttime light remote sensing in various other studies like urbanization, greenhouse gas effect, fisheries, gas flares, socio-economic activities, etc. In this study, an attempt is made to understand the relationship between electricity consumption, state domestic gross product and the nighttime lights of India from 2007 to 2017 using the simple linear regression. The spatialization of electricity consumption using Delhi as a threshold is mapped in this study. The results show that there is a strong correlation between electricity consumption and nighttime light with the  $R^2$  value of 0.88 and 0.68 for the year of 2007 and 2017 respectively and also between the electricity consumption and state domestic gross product with the  $R^2$  value of 0.91 and 0.76 for the year of 2007 and 2017 respectively.

**Keywords:** DMSP-OLS, NPP VIIRS, Regression, Electricity consumption, State gross domestic product.

## Global Pandemic COVID-19 impact on Environment

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**Abstract:** The novel corona virus pandemic disease (COVID-19) poses a cruel preference to the world: the society and the economy. It has discovered the vulnerabilities and strengths of every country and has taught us a sequence of lifelong lessons. It was started in Wuhan, China and now spread all over the world. Most of the countries implemented lockdown in their countries to control this pandemic and slow down its spread. On March 24, the Union government ordered a nationwide lockdown for 21 days, limiting the movement of people in India as a preventive measure against the COVID-19 pandemic. Lockdown due to COVID-19 has drastic outcomes on social and economic fronts. On the other hand, lockdown also has some positive impact on the natural environment. *Corona virus is a vaccine to the environment to which we humans are the virus.* There are very positive effects on the environment since there has been a complete shutdown of public transport, educational institutes, business centers, and all other social interaction points. The air pollution, water pollution, noise pollution, etc have reduced a lot in these few months of lockdown which took place all over the world. According to the recent data released by NASA and ESA, the pollution in some of the epicenters of COVID-19 has reduced up to 30%. The second most populated nation, India has also seen a drop in the pollution level. While the complete shutdown of India's economy was done by our Prime Minister to stop the spread of this corona virus, it is having an additional health benefit of clearing the air that millions of people were choking on. The Central Pollution Control Board of India's Environment Ministry has also shown a 71% decrease in the level of Nitrogen dioxide. The quality of the air will sooner be pure because of the less vehicular traffic and rise in temperature. This paper will compile the analysis of the situation of the environmental pollution post this corona virus and how due to the lockdown, a measure taken by the government to control this virus helped the environment to heal itself and reduce the pollution to some extent.

**Key words:** COVID-19, Lockdown, Environment, Air, Water and Noise Pollutions

## जैव विविधता का विकास संरक्षण एवं परियोजना में पर्यावरणीय अवनयन की भूमिका (मध्यप्रदेश के संदर्भ में)

संगीता दोहर

षोध छात्रा (भूगोल विभाग )

षासकीय कमलाराजा कन्या स्वषासी स्नात्कोत्तर महाविद्यालय ग्वालियर (म.प्र)

जैव विविधता या बायो डायवर्सिटी का तात्पर्य जैविक पर्यावरणीय अवनयन से है। पृथ्वी पर सभी सूक्ष्म जीव, विषाणु, पादप एवं प्राणी, प्रजाति, का द्योतक माना जाता है। जैव विविधता के अन्तर्गत पाये जाने वाले समस्त जीवों का अपना महत्व होता है। यह समझना अति आवश्यक है। कि पृथ्वी पर कोई जीव अनुपयोगी नहीं हैं। बल्कि प्रत्येक जीव अपने-अपने स्तर पर महत्व रहता हैं। और कई प्रकार के प्रजाति जीव विलुप्त होते जा रहे है।

मध्य प्रदेश राज्य की भौगोलिक स्थिति 21°6' उत्तरी अक्षांश से 26°30' उत्तरी अक्षांश और 74°9' पूर्वी देशान्तर से 84°47' पूर्वी देशांतर के मध्य है। प्रदेश की सीमा पाँच राज्यों को छूती है। उत्तर में उत्तर प्रदेश दक्षिण में महाराष्ट्र पूर्व में छत्तीसगढ़ और पश्चिम में राजस्थान तथा गुजरात स्थित है। भू-वैज्ञानिक दृष्टि से प्राचीनतम गोण्डवाना लैंड का हिस्सा है।

पारिस्थितिकीय तंत्र में जैव विविधता की भूमिका अति महत्वपूर्ण है। इसमें जैविक कारक अजैविक कारकों के साथ अंतर्क्रियारित रहकर स्वपोषी जीवों को उनके पोषण योग्य तंत्र उपलब्ध कराते है। मनुष्य भी इसी जैव विविधता का हिस्सा है। मनुष्य ने प्राचीन काल से इस जैव विविधता संरक्षण के महत्व को सर्वोपरि मानकर इसका संरक्षण किया है। परन्तु वर्तमान में जैव विविधता का द्यस हुआ है।

## **MORPHOTECTONIC ANALYSIS BY USING GEO-SPATIAL TECHNOLOGY OF JUNI BASIN IN LESSER HIMACHAL HIMALAYAS**

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### **ABSTRACT**

Morphotectonic investigation by the use of geomorphic indices may prove to be useful in deciphering the relative tectonic activity. Therefore, the present study has been undertaken to interpret the relative tectonic activity in Juni basin of the lesser Himachal Himalayas using geomorphic indices viz; mountain front sinuosity (Smf), channel sinuosity (Cs), asymmetry factor (Af), hypsometric integral (HI), basin elongation (Re) and circulation ratio (Rc). Data for the study were obtained from toposheets and digital elevation models. The Juni and its sub basins were delineated using the ASTER DEM in geographical information system environment. The results of the study reveal that the basin is tectonically moderately active with an average Smf value of 1.47, Cs 1.22, Re 0.60 and Rc 0.31. Likewise, the result of Asymmetry factor revealed that about 41 per cent sub-basins indicate towards upliftment whereas 59 per cent show a tilting response to tectonic stress. The results of hypsometric integral witnessed a youthful topography of the Juni basin. Apart from this, north-eastern and south eastern parts of basin are tectonically more active and undergoing neotectonic rejuvenation. The information derived would prove beneficial in identification of hazard prone areas and in planning of socio-economic development in mountainous terrain.

**KEYWORDS:** Morphotectonic, Geomorphic indices, Drainage basin, Hypsometry, Channel Sinuosity.

## **ROLE OF REGIONAL RURAL BANKS IN RURAL DEVELOPMENT**

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### **ABSTRACT**

Banking plays a vital role in the growth and development of developing countries like India. Banks lubricate the entire monetary and financial system and ensure smooth operations. Nearly 70% of the total of Indian population lives in rural areas. For the development of Indian economy, there is a need for the development of the rural areas. For the purpose of rural development, there is a need for the banking system in rural areas which provide credit at lower and at reasonable terms to the rural households unlike traditional moneylenders which exploit the rural people by providing loans at a very high interest rate which leads to rural people were unable to repay loans given by moneylenders and lost everything and also commit suicide. To avoid all those negative consequences, the government appoints a working group on rural credit, the Narasimhan committee. On the basis of recommendations given by the Narasimhan committee, regional rural banks were established. The main objective behind the establishment of these banks is the development of agriculture, trade, commerce, industry and other productive activities in the rural areas particularly in those areas where banking services does not exist and make available cheaper institutional credit to the weaker sections of the society. This research paper throws light on the need of banking system in rural areas and significant role played by banking system in the development of rural areas and discusses about the problem faced by regional rural banks in India and suggestions to overcome the problems. This study is based on the secondary data collected from the annual reports of NABARD. This study finds and concludes that the RRBs play a very important role in the development of rural areas.

**Keywords:** Regional Rural Banks, NABARD, Rural Development.

## उत्तर प्रदेश के पूर्वांचल में कृषि उद्योगों की सम्भावनाएँ

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प्रस्तुत शोध प्रपत्र में उत्तर प्रदेश राज्य के पूर्वांचल में कृषि पर आधारित उद्योगों के विकास की अपार सम्भावनाओं का विस्तृत अध्ययन किया गया है। मानव की आर्थिक क्रियाओं के विकास में कृषि का अत्याधिक महत्व है। इसके पश्चात् उद्योगों की शुरुआत हुई। वर्तमान समय में कृषि एवं उद्योग में सबसे महत्वपूर्ण कौन है, ये सिद्ध करना अत्याधिक कठिन कार्य है। जनसंख्या की तीव्र गति से वृद्धि के कारण कृषि पर जनसंख्या के बढ़ते दबाव के कारण लोगों का उद्योगों की ओर रुझान बढ़ने लगा। इससे बेरोजगारी की समस्या से भी निजात पायी जा सकती है। वर्तमान समय में कृषि कार्य आंशिक रूप से उद्योग बन गया है। औद्योगिक उत्पादन में योगदान एवं रोजगार निर्माण की दृष्टि से कृषि आधारित उद्योगों का महत्वपूर्ण स्थान है। कृषि आधारित उद्योगों में सूती वस्त्र उद्योग, रेशम उद्योग, चीनी एवं वनस्पति तेल आदि उद्योग कृषि से प्राप्त कच्चे मान पर आधारित है।

अध्ययन क्षेत्र में यदि श्रम एवं पूँजी का उपयोग इन उद्योगों में सुनियोजित ढंग से किया जाये तो न सिर्फ क्षेत्र का विकास होगा, बल्कि यहाँ से आर्थिक ढाँचा तो मजबूत होगा ही साथ-साथ युवाओं के पलायन पर भी विराम लग सकेगा। पूर्वांचल ही नहीं बल्कि पूर्वी उत्तर प्रदेश में प्रति हजार वर्ग किमी<sup>0</sup> में कृषि आधारित औद्योगिक इकाइयों की संख्या भी काफी कम है। इन्हें बढ़ावा देना इस लिए भी आवश्यक है क्योंकि इस क्षेत्र में बेरोजगारी की समस्या अधिक है, और महानगरों में रोजगार की तलाश में गये श्रमिकों का वहाँ के पूँजीपतियों के द्वारा शोषण किया जाता है। कृषि आधारित उद्योग भारतीय अर्थव्यवस्था की रीढ़ है। इन उद्योगों से ग्रामीण विकास को भी सुनिश्चित आधार मिलता है। इन उद्योगों का गुणांक 2.4 प्रतिशत होता है। (अर्थात् 100 करोड़ रुपयों से इस उद्योग में उत्पादन होने पर 240 करोड़ रुपये के अन्य आर्थिक क्रियाकलाप होने की सम्भावनायें बढ़ जाती हैं।) पूर्वी उत्तर प्रदेश में प्रति हजार वर्ग किमी<sup>0</sup> पर कृषि आधारित औद्योगिक इकाइयों को देखा जाये तो इनकी संख्या मात्र 1.25 है। आजमगढ़, मिर्जापुर, सोनभद्र एवं गाजीपुर जनपदों में प्रति हजार वर्ग किमी<sup>0</sup> में कृषि पर आधारित उद्योगों की संख्या एक से कम है। जबकि जौनपुर, सुल्तानपुर व कौशाम्बी में एक से दो के मध्य, मऊ, वाराणसी, चन्दौली व सन्त रविदास नगर में दो से तीन के मध्य एवं बलिया जनपद में चार से अधिक है।

कृषि आधारित उद्योग पर्यावरण को संरक्षित करते हुए आर्थिक विकास में सहायक होते हैं। इनमें एक ओर ग्रामीणों को विभिन्न प्रकार के रोजगार प्राप्त होते हैं तो वहीं दूसरी ओर उसके विकास से उस क्षेत्र में अनेक सेवायें एवं सुविधाएं भी उपलब्ध होंगी। इससे ग्रामीण विकास को सुनिश्चित आधार मिलता है। यही कारण है कि वर्तमान समय में कृषि में हो रहे बदलाव ने कृषि आधारित उद्योगों से सम्बन्धित उपलब्ध संसाधनों की खोज एवं उनके विकास की सम्भावनाओं को प्राकृतिक रूप से बढ़ा दिया जाता है। ये उद्योग प्रदेश की अर्थ व्यवस्था में 28 प्रतिशत का योगदान देते हैं। पूर्वी उत्तर प्रदेश के कृषि आधारित उद्योगों में इस क्षेत्र में स्थापित कुल उद्योगों का औसत 39.33 प्रतिशत पूँजी निवेश हुआ है। पूर्वी उत्तर प्रदेश में कृषि आधारित उद्योगों की स्थापना तो हुई। परन्तु कुल जनसंख्या में कार्यरत श्रमिकों की संख्या कम होने का मुख्य कारणों में आधारभूत संरचनाओं एवं यातायात के साधनों का पूर्णतः विकास का न होना, उचित दिशा निर्देश व सरकारी प्रोत्साहन का आभाव, शोध विकास, वित्त एवं उच्च तकनीक की कमी, उद्यमियों व प्रभावशाली विपणन व्यवस्था का आभाव आदि। यदि सरकार प्रोत्साहन देती तो अधिक विकास होता।

प्रयुक्त शब्द— उद्योग, सुविधायें, रोजगार, अर्थव्यवस्था।

## UNDERSTANDING THE INFLUENCE OF LIVESTOCK ANIMALS IN GLOBAL WARMING USING GEOSPATIAL TECHNOLOGY

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### ABSTRACT

Geospatial technology has rapidly expanded for the development of various sectors including animal husbandry. Remote sensing plays a major role in acquiring precise data, providing various platforms for animal husbandry survey. The involvement of remote sensing promotes high-end research and development in animal husbandry sector. This study is concerned with the role of livestock animals in global warming through the release of N<sub>2</sub>O and methane for Thiruchirappalli of district of Tamil Nadu, India. Tamil Nadu has a livestock population of about 120.8 million, where the selected study area, Thiruchirappalli contributes about 17.5 lakhs of livestock population. GIS tools like ValoreE and Arc GIS for monitoring and mapping of N<sub>2</sub>O and methane emission by various livestock animals like cattle, goat, sheep and pig are used. Livestock animals are not only source of Greenhouse gas emissions but also their excrement can be used for manure and production of bio fuel. Land management plays a major role in growing livestock, at the same time livestock rearing also has many other uses like control of weeds and undergrowth of crops due to the grazing of these unwanted plants by livestock. For example, in areas prone to wild fires, livestock animals are set to graze on dry shrubs which reduce the risk of fire. The management of these animal wastes in an effective manner can lead to sustainable development for a developing country like India which stands at the second place in world livestock population.

**Key words:** Geospatial technology, animal husbandry, N<sub>2</sub>O, methane, bio gas.

## SMART CITY DEVELOPMENT POLICY OF GOVERNMENT: GIS AND REMOTE SENSING

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### ABSTRACT

The decade of eighty was the emerging in the field of science specially in rocket science, this era was also well noted for several political as well as historical development in world, beside this all the develop countries are keen to make their active presence in space by their launcher rocket and satellite. This will open the door for everyone in the past years for spatial information assets through GIS, Remote sensing datasets, which include extra information of earth surface compared with usual city maps. The first-generation satellite sensors such as Landsat MSS and WAS in use during 1980s. These were used in urban planning and management in all develop countries as well in developing countries for land escape design and development of planned city settlement. Landsat TM, ETM+ and SPOT HRV with advancement in remote sensing technologies with excessive spatial resolution and sensor, whereas IRS-P6 Resource cast , IRS-ID Cartosat-1 , Cartosat-2, IKONOS, PAN, LISS III satellite provide 3-D laser scanning, P6 data of advance Terrain visualization, facts mining and advanced picture processing technology these higher resolution process sensor and data set providing new methodology , Remote sensing can be extensively used inside the complete range now days for smart cities develop by Government of India “which is represented by the four pillars of comprehensive development-institutional, physical, social and economic infrastructure. Smart city planning procedures are analysis of urban growth/sprawl and its trend, updating and monitoring using a systematic coverage area, assessment of urban morphology and population estimation, survey for space to apply it for metropolis improvement making plans, monitoring of slum region and preparation of its updating plans and observe the transportation machine development its vital aspects both in static and dynamic mode for structural development of smart cities. GIS and remote sensing also play a vital role management and policy regulation of smart city authorities by Zoning, Subdivision planning, Land acquisition, Economic development, Code enforcement, Housing renovation programs, Emergency response, Crime analysis and Tax assessment.

**Key words:** Government Policies, GIS, Remote Sensing, Smart Cities

## **A SPATIAL ANALYSIS OF MIGRATION TRENDS THROUGH REMOTE SENSING AND GIS: A CASE STUDY OF ELDECO-2 IN LUCKNOW CITY**

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### **ABSTRACT**

Geography deals with the study of places and the relationship between man and the environment. It has many branches like: Physical, Human, Environmental, Remote Sensing and GIS and many more. In this paper we will discuss about the migration which is the part of Human geography. Migration in geography refers to the movement of living things (humans, animals, birds & insects) from one place to another place which can today in modern world can be easily tracked through Remote Sensing and GIS. The present paper focuses about the human migrants and their related issues at different streams like Rural to rural, rural to urban, urban to rural, urban to urban. Besides this it also focuses to understand various challenges, problems which migrants are facing in the study area of Eldeco-2 in Lucknow City. Basically the main concern and focus of the study is to focus and analyze different migration due to jobs, business, marriage and education in the capital city of Uttar Pradesh, Lucknow, which is also popularly known as THE CITY OF NAWABS. For this online survey was carried out in which different age groups and professional people were surveyed in order to evaluate causes, effects, drawbacks and find possible solutions so as to make the Eldeco-2 a qualitative developed area because it is time when we have to think globally but we have to act locally.

# मृदा स्वास्थ्य के अध्ययन हेतु सामान्य एवं तापीय सुदूर संवेदन का बढ़ता अनुप्रयोग: एक समीक्षा

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## सारांश

पृथ्वी ऊपरी सतह पर मोटे, मध्यम और बारीक कार्बनिक तथा अकार्बनिक मिश्रित कणों को मृदा कहते हैं। मृदा मानव जाति के लिए काफी महत्वपूर्ण है, क्योंकि यह पोषण एवं जीव – जन्तुओं को समर्थन प्रदान करती है जो हमारी दैनिक आवश्यकताओं जैसे : रोटी , कपडा, मकान इत्यादि की पूर्ति करती है। सभी मिट्टियों की उत्पत्ति चट्टानों से हुई है। जहाँ प्रकृति ने मिट्टी में अधिक हेर-फेर नहीं किया और जलवायु का प्रभाव अधिक नहीं पड़ा, वहाँ यह संभव है कि हम नीचे की चट्टानों से ऊपर की मिट्टी का संबंध क्रमबद्ध रूप से स्थापित कर सकें। यद्यपि ऊपर की सतह की मिट्टी का रंग-रूप नीचे की चट्टान से बिलकुल भिन्न है, फिर भी दोनों में रासायनिक संबंध रहता है। आज के तकनीकी युग में रिमोट सेंसिंग तकनीक मृदा सम्बन्धी अध्ययनों के लिए अत्यंत उपयुक्त है। मृदा में विद्यमान नमी के आकलन हेतु एवं मृदा के तापमान इत्यादि को पता करने के लिए यह तकनीक बड़ी मात्रा में प्रयोग में लायी जा रही है। अतः सामाजिक विज्ञानों में भी इस तकनीक का इस्तेमाल दिन प्रतिदिन बढ़ता जा रहा है।

**संकेताक्षर:** मृदा, कार्बनिक पदार्थ, अकार्बनिक मिश्रित कण, जलवायु, रासायनिक संबंध, चट्टान।

## **GIS: A NEW WAY FORWARD**

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Msu Baroda

### **ABSTRACT**

Geographic Information systems (GIS) use in public healthcare is increasing day by day. It is helpful in interlinking health, environment & population to evaluate & correct the issues coming up in rural areas linked on a geographical basis. Due to GIS information can be accessed & made available by remote sensing, satellite & in some cases by artificial intelligence. Investigations regarding disease control & strategic prevention can be carried out in this technology. It combines spatial analysis, geostatistics, modeling & algorithms for predicting disease pattern & can now be utilized for its prevention. Studies of certain epidemics can be studied & risk of spreading such infectious disease can be eliminated. Till now it is underutilized in some other areas of public health & in some rural areas. This can be converted to our use by maintenance of database, low cost infrastructure & easy data availability & by involving local authorities to national & international level to apply it for its full potential. Thus, mapping scale & geostatistical analysis is important if GIS is adopted as an effective tool to control spread of various diseases.

Keywords: *GIS, Epidemic, public health, remote sensing, infectious disease*

## **REGIONAL DISPARITIES IN RURAL DEVELOPMENT IN HISAR DISTRICT, HARYANA**

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**Dr. Sahab Deen, Assistant Professor, LPU Phagwara, Punjab**

### **ABSTRACT:**

The present study aim to improve the rural lives with participation of the rural people themselves so as to meet the required need of rural area of Hisar district. The Hisar district in Haryana is most popular district majority of population live in rural areas. This situation comprise of wide spread unemployment, low standard of living, inadequate productive skill. The rural development programe is a key device of progress of rural area in any region. Rural development is a process of not only increasing the level of per capital income in the rural areas but also the standard of living of the rural population measured by food education security and housing. Hisar district, is a leading contributor to the state production of food grain and milk. The main objective of this paper is to upgrade the living standard of the rural people by providing ways to develop rural parts of Hisar. The present study implementation of the relvent policies and programs, which need to socio-economic equity.

**Key words:** Rural Development, literacy Rate, Growth Rate.

## **PROSPECT OF USING GEOSPATIAL TECHNOLOGY IN DEVELOPMENT OF RURAL LIVELIHOOD IN DHAKUAKHANA, ASSAM**

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### **ABSTRACT**

Geospatial technology has wide range of application in today's world. It is much more useful in dealing with the development of rural areas, specially, those physically inaccessible rural areas of North Eastern India. Better planning and management of developmental activities on space required regular spatial monitoring and in the harsh terrain of North Eastern region regular monitoring is practically impossible but with geospatial technology it can be done with much ease. Improving rural livelihood is an integrated part of all forms of developmental programme. Dhakuakhana is a subdivision of Lakhimpur district of Assam, located along the north bank of Brahmaputra. The largest share of population composition consists of Scheduled Tribes, with *Mishing*, as the most dominant group. A vast portion of the land in the study area are annually flooded, inundation and sedimentation are common problem here. The most devastating effect of these is the loss of livelihood of poor villagers. There are prospects for improving the already available livelihood in the region and geospatial technology can be very helpful. The area that are mostly inundation can be traced out in GIS environment and used for wet paddy cultivation (*Bao Dhan*). The areas where the water level is very high and paddy cultivation are not possible can be used for pisciculture. The higher lands in study area have good prospects for Muga Silk cultivation, there are many Muga Farms (*Sumoni*) in the area. The areas where sedimentation is a persisting problem can be traced out with the help satellite imagery and an alternate form of livelihood can be developed. There are prospect of development of weaving and animal husbandry in these areas.

**Keywords:** agriculture, sericulture, pisciculture, animal husbandry, geospatial technology

## कोविड-19 के समय संधारणीय विकास लक्षप्राप्ती में निर्माण हुवी समस्याओ का विस्तृत विश्लेषण

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### सारांश

कोविड -19 के संक्रमण को फैलने से रोकने के लिए भारत में देशव्यापी लॉकडाउन 24 मार्च 2020 को किया गया और देश में निरंतर बढ़ते मामले की वजह से लॉक डाउन की समयावधि परिस्थितिनुरूप बढ़ाई गयी कोविड-19 की वजह से समूचे विश्व में हाहाकार मचा हुआ है। आज लोगो की जीवन शैली जरुरी चीजे रहन सहन कामकाज तरीके में नए बदलाव कर दिए गए है। समुचे विश्व का कायाकल्प करने हेतू संधारणीय विकास लक्ष 2030 का अजेंडा विकास के एक भाग के रूप में सितम्बर 2015 में स्वीकार किया गया। भारत देश 17 संधारणीय विकास और 169 संबध लक्ष को हासील करने में प्रतिबद्ध है जो व्यापक रूप से विकास के सामाजिक आर्थिक और पर्यावरणीय आयाम को कवर करते है। आज समुचे विश्व में कोविड-19 के फैलते संक्रमण ने भीषण रूप धारण कर लिया है। कोविड-19 के संक्रमण के चलते समुचे विश्व में संक्रमण कि स्थिती को देखते हुवे संक्रमण कि गती धिमी करनेकी कोशिशें तेजी से सुरु होने लगी। कोविड-19 संक्रमण का असर संधारणीय विकास लक्षप्राप्ती में बाधा हुवी इस बात को ध्यान में रखते हुवे संधारणीय विकास लक्षपर सामाजिक, आर्थिक और पर्यावरणीय पहलुओं में परस्पर जुड़े हुए हैं। गरीबी, भुखमरी, शिक्षा, स्वास्थ्य और खुशहाली, शिक्षा, लैंगिक समानता, जल एवं स्वच्छता, ऊर्जा, आर्थिक वृद्धि और उत्कृष्ट कार्य, बुनियादी सुविधाएं, उद्योग एवं नवाचार, असमानताओं में कमी, संवहनीय शहर, उपभोग एवं उत्पादन, जलवायु कार्रवाई, पारिस्थितिक प्रणालियां, शांति एवं न्याय और भागीदारी। इस समग्र एजेंडा में माना गया है कि अब केवल आर्थिक वृद्धि पर फोकस करना पर्याप्त नहीं है, बल्कि निष्पक्ष और अधिक समतामूलक समाजों तथा अधिक संरक्षित एवं अधिक संपन्न पृथ्वी पर फोकस करना होगा।

## **Rural Employment by Skill Development**

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### **ABSTRACT**

The main aim of rural individuals is to obtain good employment opportunities. This Research paper deals in areas that give new employment opportunities can be generated in rural areas. They possess . The rural individuals are engaged in number of employment opportunities. The rural employment basically focuses on the skilled based jobs as rural areas do not have so strong educational system therefore their live standard can be increased by developing there skills and with that skills they can easily get jobs. The main objective of this research paper is to acquire an efficient understanding of employment opportunities, in which rural individuals are engaged. The main areas that have been taken into account are, nature of unemployment in India, types of employment opportunities in rural communities, factors influencing children to get engaged in employment opportunities, and factors influencing the acquisition of employment opportunities.

**Keywords:** rural employment, development, skill development, opportunity

## **GEOSPATIAL TECHNOLOGY USED OF SUSTAINABLE PLANNING FOR RURAL DEVELOPMENT**

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### **ABSTRACT**

The advent of Geospatial Information technologies including Remote Sensing (RS), Geographic Information System (GIS) and Global Positioning System (GPS), individually as well as jointly, are playing a significant role in the and inclusive growth of the rural areas in India are providing new perspectives for understanding rural systems. By utilizing Geospatial Technologies with more integrative research approaches, geographers can ask more socially relevant and innovative questions about the human-environmental system. There has been a significant in usable sensor systems for analyzing human dimensions of rural areas through high spatial and spectral resolution approaches.

The present study is to apply Geospatial Technology used in various stage of Sustainable Planning for Rural Development implementation and monitoring of the area. Today the Geospatial Techniques and its scope of applications have change. It has been universally accepted as a most important and modern tool for mapping and monitoring of various discipline as well as amenities and infrastructure. The huge and voluminous spatial data base generated from various Remote Sensing. GIS & GPS platforms need proper management like storage, retrieval, manipulation and analysis to extract desired information. This is where the computer aided GIS technology came in to existence. A GIS & GPS with major input from Remote Sensing satellites for the different applications must be able to handle the spatio temporal data, quarries and other spatial operations. Software and the computer-based tools are designed to make things easier to the user and to improve the efficiency and quality of information processing data (Tiwari M.K.2012)

For example Geospatial Technology can help MGNREGA workers to get information about availability of work in the near location work, site location information, real time transparent attendances and payment information for Rural Development.

Geospatial Technology and data based information system for Rural Development is a GIS based application which gives comprehensive spatial information relating to demography, infrastructures, utilities and natural resources for a specific village.

**Key Words:** Geospatial Technology, Rural Development, Sustainable Planning.

## **COVID-19 AND LOCKDOWN IMPACT ON PERFORMANCE OF ECONOMIC ACTIVITIES OF SELF-HELP GROUPS IN LAKHIMPUR DISTRICT OF ASSAM**

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### **Abstracts**

This study paper is attempted to analyze covid-19 and lockdown impact on the performance of Self-Help Groups on economic activities in Lakhimpur district of Assam. The novel corona virus (Covid-19) pandemic is rapidly spread all over the country in the month of march, 2020. To control the rapid spread of covid-19 case Government of India has announced complete lockdown on 24<sup>th</sup> march, 2020 and so on. The complete lockdown is adversely affected the entire aspects of human activities. There are strictly restricted to go outside form home and taking some extensive precautions to control the spreading of corona virus by avoiding social contact, avoiding to gathering of public places etc. Due the stress of undue pandemic people has lost their sources of income as well as investment. The present study paper used the both primary and secondary data. There are 90 active members has been selected from 30 SHGs groups (30X3=90) and collect the recent information by asking some specific questions. The information of the present study has revealed that the covid-19 pandemic has affected their entire activities. In this paper try evaluate the performance of self-help groups during the lockdown period and also explore various factor that affect in economic activities.

**Keywords:** covid-19, income, lockdown, Self-Help Groups.

## **GEOSPATIAL TECHNOLOGY AND SMART VILLAGES: A PARADIGM SHIFT IN RURAL DEVELOPMENT**

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### **Abstract:**

The statistics explains itself. World population is urbanising with exponential growth rate. The convergence of technology and the city is commonly referred to as the 'smart city'.

The concept urbanization has come to be considered equivalent to so called development. However there are some challenges with this process of urbanization as it's not a static phenomenon. There is an explicit need to understand the impact of smart cities on the urban environmental social and economic sustainability from holistic perspectives especially in the "Global South" where cities are characterized by dense population, bleeding infrastructure, lack of amenities and existence of slums.

The Covid-19 pandemic and sudden global lockdown across Nations has brought migrant livelihoods to a halt. The migrant crisis brought to the fore the unfulfilled obligations of the governments to restore work to its most vulnerable citizens in the era of economic liberalisation. Migrants are in state of continuous drift.

My argument is developing smart cities will create an 'island of opportunities' in the 'ocean of dissection and distress' which is not sustainable. The importance should be given to digital transformation of rural areas. Sustainability of rural areas with positively impact the cities as both are intertwined and will provide potential growth to smart cities rationale.

This research paper will also explore what are the key drivers, How the smart city paradigm can be conceptualized and synthesize a new framework for sustainable cities which forms the rational of the research paper. How has the nationwide lockdown across globe impacted the lives of internal migration? What are causes of internal migration? How it has exposed false dichotomies and became a public discourse about "us" and "them".

**Keywords: Smart Villages, Urban Sustainability, Sustainable Planning, Governance, Covid-19 crisis and Internal Migration challenges.**

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Department of Geography, MLK (PG) College, Balrampur, U.P. India**

## **IMPORTANCE OF GEO-SPATIAL TECHNOLOGY IN RURAL DEVELOPMENT**

**Anurupa Saha**

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### **ABSTRACT**

According to the 2011 census, 68.84 percent population lives in villages, so the development of the rural sector makes for the advancement of the country. There is a wide difference in facilities in rural and urban areas. Improvement of facilities in rural areas will reduce disparity. In today's changing world, spatial information is considered as an essential component in any developmental planning process. Geographic Information Systems have gained widespread acceptance. With the ease of availability of data and information, the structure functions will undergo an insightful transformation in this century. The advanced technologies like GIS, remote sensing and GPS can be incorporated to build up a planning procedure for rural development. GIS enables access to large volumes of data and is a tool for effective decision-making in regional planning. Spatial Data Infrastructures have potential to support in planning, monitoring and exchange of information between the administrations. Advancement in geospatial technology has given a platform to the creation, up-gradation, storing and sharing of the spatial database in a speedy and cost-effective way. The focus of this paper is to give an overview of the importance of spatial data for rural development.

**Keywords:** Geo-spatial technology, Availability of data, Planning procedure, Decision making, Rural development.

# IMPORTANCE OF GEO-SPATIAL TECHNOLOGY IN RURAL DEVELOPMENT

**Anurupa Saha**

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## ABSTRACT

According to the 2011 census, 68.84 percent population lives in villages, so the development of the rural sector makes for the advancement of the country. There is a wide difference in facilities in rural and urban areas. Improvement of facilities in rural areas will reduce disparity. In today's changing world, spatial information is considered as an essential component in any developmental planning process. Geographic Information Systems have gained widespread acceptance. With the ease of availability of data and information, the structure functions will undergo an insightful transformation in this century. The advanced technologies like GIS, remote sensing and GPS can be incorporated to build up a planning procedure for rural development. GIS enables access to large volumes of data and is a tool for effective decision-making in regional planning. Spatial Data Infrastructures have potential to support in planning, monitoring and exchange of information between the administrations. Advancement in geospatial technology has given a platform to the creation, up-gradation, storing and sharing of the spatial database in a speedy and cost-effective way. The focus of this paper is to give an overview of the importance of spatial data for rural development.

**Keywords:** Geo-spatial technology, Availability of data, Planning procedure, Decision making, Rural development.

## **INDIRECT IMPACT OF COVID-19 ON ENVIRONMENT: A BRIEF STUDY IN LUCKNOW CONTEXT**

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### **ABSTRACT**

Worldwide spread of COVID-19 in a quite short time has brought a dramatic decrease in industrial activities, road traffic and tourism. Restricted human interaction with Positive and negative indirect effects of COVID-19 on the environment. Increased waste and the reduction of recycling are negative side effects of COVID-19 during this crisis time have appeared as a blessing for nature and environment. Reports from all over the world are indicating that after the outbreak of COVID-19, environmental conditions including air quality and water quality in rivers are improving and wildlife is blooming. The environment is an integral component of human and animal health. The Covid-19 pandemic has huge impacts on huge aspects of human activities, reduction in air pollution through decreases and travel production. Environmental degradation was happening fast due to the depletion of resources such as air, water and soil. But after the coronavirus lockdown commenced, there have been slight changes in the environment. Effects on vegetation, the water quality became so clear that the fish could be seen and there was better water flow. No doubt, because of the lesser human footfall even the oceans are recovering and marine life is thriving. Effects on wildlife, the environment is cleaner since the lockdowns kicked in, and may never get as bad as before. Economic rebalancing and it's ill effects.

**keywords:** covid-19 ,Pandemic situation, Lockdown, air pollution, noise pollution, water and rivers.

Vegetation, Effects on wildlife.

## **ROLE OF GEO-SPATIAL TECHNOLOGY IN AGRICULTURAL WATER MANAGEMENT: A STUDY IN THE STATE OF UTTAR PRADESH**

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### **ABSTRACT**

Geospatial Technology is a rapidly growing and emerging field. Geospatial Technologies include Remote Sensing, Geographical Information System (GIS) and Global Positioning System (GPS) which are trending technologies that assist the user in collection, interpretation and analysis of Spatial Data. Geospatial Technology has made inroads across various sectors in public as well as private domains. Agriculture is a key sector which is capable of wide applications of Geospatial techniques. Uttar Pradesh is one of the leading contributors of agricultural production in the country. Located on the fertile plains of Ganga and its tributaries, it is the one of the most fertile lands on the earth. So, Uttar Pradesh is primarily an agrarian state in which about 65% of total working population is engaged directly or indirectly in agricultural activities. Geospatial tools can be vividly used in the mapping of drainage patterns, management of fertilizer and pesticides, resource management, prediction of outcomes, improving farm practices etc. Moreover, Geospatial tools in the field of Agricultural water management can prove to be a powerful tool for expanding the irrigation estimation, increasing crop productivity, precision farming, ground water assessment and facilitating the selection of most suitable crops etc. This paper aims to take into account the possible applications of Geospatial tools in the Agricultural water management in the agriculture dominant state like Uttar Pradesh and which can further help in paving the way for sustainable agriculture.

**Keywords:** geospatial, sustainable agriculture, evapotranspiration, watershed, groundwater

## प्रवासी मुद्दा: उत्तराखण्ड राज्य के संदर्भ में

दीपक सोराड़ी

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### ABSTRACT (सारांश)

अपने शहर को छोड़कर दूसरे शहर में बसना, क्या इसके लिए अपनी खुशी से सहमत है या इसके पीछे उनकी कोई मजबूरी है। ऐसे लोगों को प्रवासी कहा जाता है। प्रवासी कौन होते हैं? उनके द्वारा उठाए गये इस कदम के पीछे क्या क्या कारण हैं? इस कदम से कौन कौन प्रभावित होता है और उन्हें किन किन समस्याओं का सामना करना पड़ता है? आदि प्रश्न हमेशा से प्रवासियों के सन्दर्भ में विचारणीय रहें हैं। जैसे कोविड 19 के वर्तमान समय में प्रवासी समस्या पूरे देश में प्रमुख मुद्दा है, लेकिन यदि हम उत्तराखण्ड के सन्दर्भ में देखें तो यह समस्या राज्य के गठन के समय से ही प्रमुख समस्या है। आज राज्य गठन के लगभग 20 वर्षों के बाद भी प्रवास की समस्या में कोई विशेष बदलाव नहीं हो पाया है। यहाँ तक की राज्य की अर्थव्यवस्था का बड़ा भाग इन प्रवासियों द्वारा भेजी गयी आमदनी पर आधारित है, जिसके कारण यहाँ कि अर्थव्यवस्था को मनीआर्डर अर्थव्यवस्था भी कहा जाता है। उत्तराखण्ड में विशेष रूप से पहाड़ी क्षेत्र में रोजगार, इन्फ्रास्ट्रक्चर, पानी की कमी स्वास्थ्य, शिक्षा आदि प्रमुख कठिनाईयां वहाँ के लोगों को प्रवासी बनने के लिए मजबूर करती है। प्रवासी समस्या समाधान के लिए समय समय पर राज्य सरकार द्वारा विभिन्न योजनाओं, आयोगों का गठन आदि कर कई प्रयास किये गये हैं। इसके बावजूद स्थिति में बहुत सुधार नहीं आ पाया है। वर्तमान कोविड 19 के समय में वापिस लौटे प्रवासियों के आकड़ों से पुनः इस बात को बल मिला है कि पलायन करना उनकी मजबूरी थी एवं प्रवास क्षेत्र में भी उनके सामने कई समस्याएं हैं। अतः इसके समाधान के प्रयासों की बहुत आवश्यकता है। सरकार राज्य में रोजगार के साधनों में विशेष रूप से स्वरोजगार को बढ़ावा देकर, पहाड़ी क्षेत्र में कृषि को बढ़ाने के लिए फसलों को पशुओं से बचाने के लिए उपाय, इन्फ्रास्ट्रक्चर में यथाशीघ्र सुधार आदि के द्वारा राज्य से बढ़ते प्रवास को कम किया जा सकता है।

**बीज शब्द** – प्रवासी, कोविड 19, मनीआर्डर अर्थव्यवस्था, रोजगार के साधन, आजीविका

## Should Subsidies be given to Agriculture Sector?

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**Abstract:** - Subsidies means financial assistance given to the producer to decrease the cost of production. At present, central as well as state governments are giving agriculture subsidies like fertilizers, electricity, irrigation and seeds etc to Indian farmers. The main purpose of these subsidies is to help the farmers so that they can use new technology and reduce the production cost. These subsidies have an impact on the farmers, financial position of governments and natural resources etc. Due to their economic effects, these have become debatable issue in India. In this paper, an attempt is made to know the impact of subsidies on Punjab farmers. This study is based on primary source of 471 sampled farmers. From the study, it has been noted that subsidies which have direct relationship on production should be given to farmers.

**Key-words:-** Agriculture, Effects, Financial, Productivity, Subsidies.

## कृषि क्षेत्र में महिलाओं की बढ़ती भागीदारी का हरियाणा राज्य के विशेष संदर्भ में अध्ययन

ज्योति ' मोनिका "

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### सारांश

भारत एक कृषि प्रधान देश है जिसके विकास में जनसंख्या के बड़े हिस्से के रूप में महिलाएं भी अपनी महत्वपूर्ण भूमिका निभाती हैं। भारतीय अर्थव्यवस्था के साथ-साथ कृषि क्षेत्र में भी महिलाओं का मुख्य योगदान रहा है। सभी प्रकार की कृषि गतिविधियों में महिलाओं की भागीदारी बहुत अधिक रही है। कृषि क्षेत्र में देश में आर्थिक रूप से सक्रिय सभी महिलाओं की 80 प्रतिशत संख्या नियोजित है जो कुल कृषि श्रमिकों का 33 प्रतिशत और स्वतः नियोजित किसानों का 48 प्रतिशत हिस्सा है। प्रस्तुत शोध हरियाणा राज्य के कृषि क्षेत्र में महिलाओं की बढ़ती हुई भागीदारी से संबंधित है। हरियाणा राज्य एक कृषि प्रधान राज्य है जहां की 70 प्रतिशत जनसंख्या कृषि कार्यों में संलग्न है। कृषि क्षेत्र में महिलाएं पारंपरिक साधनों के माध्यम से या कृषि मजदूर के रूप में एक क्षणिक जनसांख्यिकीय समूह का प्रतिनिधित्व करती हैं। प्रस्तुत अध्ययन 2001 से 2011 के आंकड़ों की तुलनात्मक जानकारी प्रदान करने में सक्षम है। कृषि क्षेत्र से संबंधित है सर्वेक्षण कार्यों के दौरान पता चला है कि इस क्षेत्र में महिला किसानों की संख्या बढ़ रही है। मानचित्रिकरण के लिए 10.2 सॉफ्टवेयर का प्रयोग किया गया है।

संकेताक्षर :- अर्थव्यवस्था, महिलाएं, कृषि, भागीदारी, हरियाणा राज्य।

## **RURAL WELFARE IN INDIA: PRESENT NEEDS AND FUTURE PERSPECTIVES**

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### **ABSTRACT**

India is a country of diverse culture, tradition and ethics. In India people follow different tradition, but above all there is a sense of belonging among all people. It is correct to say that there is a unity in diversity. Our villages are the epitome of this unity, in villages people share common culture, feelings and sense of collectiveness which is hard to see in cities.

After the catastrophe of this COVID-19 , which shaken the human civilisation , economy of our country goes to downward. The government did his best to protect the life of its citizen. Hence, it also become imperative for all us to protect our villages also. After the lockdown, due to reverse migration the situation become worse in many parts of our country. People didn't able to afford basic necessities. i.e, food, shelter and cloth. The people also face depression, which also become a major problem in today's world. So, it becomes imperative for the government to look toward villages.

Now, it is the correct time for government to give more focus to cottage industries. Provide soft loan to new business ideas and create competitiveness among the people of villages by inducing new ideas. We should now have many ways and method to help the villages now it is upon us how to deal with situation. If we will join all the points and fill the loopholes then our villages become self sufficient and we will able to control the slum and employment problem in cities at large extent.

## **SUSTAINABLE MICRO FINANCE AND RURAL DEVELOPMENT FOR INCLUSION**

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### **ABSTRACT:**

Micro-Finance in India is emerging as an effective instrument for poverty alleviation, women empowerment and sustainable development. In India, Non- Governmental Organization (NGO) led micro credit is proved as an effective and financially viable alternative to address rural poverty through the provision of credit without collateral, unleashing human creativity and endeavour of the poor people. Micro finance institutions are operating through banks linkage program aimed at providing a cost effective mechanism for providing financial services to the 'unreached poor'. Banks lend micro-credit through Self-Help Groups (SHGs) and to local Micro-Finance Institutions (MFIs) based on the philosophy of peer pressure and group savings as collateral substitute. In India, the micro-Finance concept has been successful in not only designing financial products meeting needs of the rural poor, but also in strengthening collective self-help capacities of the poor at the local level, leading to their empowerment. At macro level, the self help group is a useful instrument for savings mobilization and enhancing access to credit for the rural, unreached poor for their productive investment. In this paper an attempt has been made to describe how micro credit is effective and financial viable method of addressing sustainable rural development through provision of micro credit to rural poor for productive activities.

**KEYWORDS:** Empowerment, micro finance, micro credit, poverty alleviation, self help group, sustainable development.

## RURAL DEVELOPMENT THROUGH SOCIAL SECURITY SCHEMES

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### ABSTRACT

In an industrial economy, the workers are subject to periodic unemployment due to cyclical fluctuations in business, sickness, industrial accidents and old age. There is nothing more serious to a worker and his or her family than unemployment. While the capitalist has all the resources to face the risks of modern business, the worker does not have any financial resources to face the risks of sickness, accidents, unemployment and old age; nor has he or she alternative sources of livelihood or accumulated property to help him or her through in period of adversity. Naturally the state has the obligation to help the workers and provide them security.

The social security measure had been introduced in many countries for a long back, while in India it was introduced only after independence. This has been mainly due to lack to official sympathy and interest in the welfare of workers and the comparative weakness of the trade unions in pressing their demand for such measures. In this study, the Researcher tries to explain the implementation of 3 security schemes in Karnataka state such as; **Sandhya Suraksha Yojana, Destitute Widow Pension, and Physically Handicapped Pension** is carried out from the information collected from the beneficiaries of six villages in Sagar Taluk using a structured questionnaire. The secondary data has been collected from books, journals and internet sources. The data collected are analyzed with simple statistical techniques.

The paper suggested giving much importance to the needs of the people, proper control over selection of beneficiaries, ensuring greater transparency by avoiding the role of middleman, taking strict action against the misuse of social security benefits, creating awareness about the scheme with the help of *Gramasabha*, as well as NGOs and evolving a single window system for avoiding duplication.

The social security schemes are one of the important schemes of government of Karnataka. This scheme is having greater value especially in rural areas. A well-defined social security program needs to be welfare oriented, are inclusive, broad - based and better implemented. Making schemes targeted and contributory could negatively affect the features. The critical review of the social security schemes in India suggests that there is a need to widen their coverage so that majority of the people who continue to be outside the ambit are brought within it. There is also a need to bring about a qualitative improvement in the services provided.

**Key Words:** Destitute Widow Pension (DWP), National Social Assistance Program (NASP)  
Physically Handicapped Pension (PHP), Sandhya Suraksha Yojana (SSY)

## **A STUDY ON APPLICATIONS OF THERMOGRAPHY IN AGRICULTURE**

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### **ABSTRACT:**

Thermal imaging converts the invisible radiation pattern of an object into a visible image. Infrared thermal imaging applied in various fields such as aerospace, agriculture, civil engineering, medicine, and veterinary. In agriculture, thermal imaging has been successfully adopted for studying plant physiology, irrigation scheduling, and yield forecasting. It also evaluates growth maturity, detects bruises in fruits and vegetables, and spoilage made by microbial activities. The thermal imaging monitors the visible and near infrared radiation that plants reflect, capturing the data needed in order to take action on time. This data can identify many problems which are caused by extreme climate changes, weeds, pests and diseases, over-planting, improper irrigation, inconsistent application of fertilizers, poor drainage and more. Potential use of thermal imaging in agriculture and food industry includes predicting water stress in crops, planning irrigation scheduling, disease and pathogen detection in plants, predicting fruit yield, evaluating the maturing of fruits, bruise detection in fruits and vegetables, detection of foreign bodies in food material, and temperature distribution during cooking. In this study we reviewed the application of thermal imaging in agriculture and food industry and elaborate on the potential of thermal imaging in various agricultural practices. The major advantage of infrared thermal imaging is the non-invasive, non-contact, and non-destructive nature of the technique to determine the temperature distribution of any object or process of interest in a short period of time.

**Key Words:** Thermal imaging, Infrared radiation, Agriculture

## **GROUNDWATER QUALITY ASSESSMENT IN KANCHIPURAM DISTRICT, TAMIL NADU.**

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### **ABSTRACT**

Groundwater is widely distributed than surface water and is used for domestic, industrial and agricultural purpose throughout the world. More than 95% of rural population depends on ground water for all needs. The present study was carried out Groundwater quality Assessment of Kanchipuram district in Tamil Nadu, India. A total of 43 ground water samples were collected in the study area. The groundwater quality assessment has been carried out for pH, EC, TH, TDS, Ca, Mg, Na, K, HCO<sub>3</sub>, Cl, SO<sub>4</sub>, NO<sub>3</sub>, and F. The spatial Variation of physio- chemical properties of water were plotted in GIS (Geographical Information Systems). The quality of water is evaluated using Piper and Wilcox Diagram. The results will give the clear cut information about the Groundwater quality Assessment of the study area.

**Keywords:** physic-chemical, water quality, GIS, Piper, System, properties.

## **ROLE OF REMOTE SENSING IN AGRICULTURE**

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### **ABSTRACT**

Over the period, level of pollution in air, water, and soil has crossed the limit considerably because of poor environmental management. An integrated geo-spatial technology i.e. Remote Sensing (RS), Geographic Information System (GIS), and Global Positioning System (GPS) can also help in assessing, understandings, utility mapping, and service facility. The main objective of the present research paper is to enlighten advanced technology viz. Remote Sensing, GIS and GPS in determining the degree of environmental pollution and remedial measures thereof. The remotely sensed data could be analyzed with the help of GIS and may be verified partially with GPS. Today various softwares, like, ARC-GIS, ERDAS imagine, GRAM ++, are being used. In addition, softwares like, BASINS 4.0, GEOMATICA, GRASS and like that many others are available at free of cost. Geographic Information System software's satellite data is available at free of cost from Global Land Cover Facility (G. L. C.F.).

**Key Words:** Remote Sensing, GIS, GPS, D-GPS, GEOMATICA, GRAM ++, ERDAS IMAGINE, ARC-GIS, GRASS, Environmental Pollution.

## **The Role of Geospatial Technology for Economic Development of India via Rural Development**

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### **ABSTRACT**

About 80% of the population of India lives in the village area. The people of the village area depend totally on agriculture, but even now the agriculture of Indian village is not developed, as it can be lead to industries in the village area. This is why the educated people of the village are normally shifting to town areas to get the opportunity in services. The village economy i.e. agriculture may enhance by knowledge regarding agriculture by developing geospatial technology. This technology which includes remote sensing and geographical information system will be helpful to assess the agriculture potential of a rural area. The approach helps to assess the suitability of land (i.e. soil) and climate, which are a deterministic factor for agriculture development. Various spatial analysis help to select the crop and models of agriculture for an area. The analysis gives us data of suitability based on the most important and yield-limiting parameters - such as rainfall, temperature, soil characteristic. The result indicates the potentiality of the area to a variety of agriculture. This also depends on soil fertility and manure which again depends on irrigation which yet again depends on water availability of the area which can be known by remote sensing so geospatial technology is very helpful for enhancing the agriculture capacity. The total potential of the land can be used by this. All these may help promote rural development, thus the development of rural people as well as India.

**Keywords** - Techniques, agriculture, potential agricultural development, sustainable, rural development, economical development.

## **IMPACT OF LIVESTOCK IN GLOBAL WARMING USING GEOSPATIAL TECHNOLOGY IN TIRUCHIRAPPALLI DISTRICT**

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### **ABSTRACT**

Global warming is seen as a major threat to the survival of many species, ecosystems and the sustainability of livestock production systems in many parts of the world. Ruminant livestock such as cattle, buffalo, sheep and goats contribute the major proportion of total agricultural emission of methane. Geospatial technology plays a major role in acquiring precise data through survey and promotes high-end research and development in animal husbandry sector. This study is concerned with the impact of livestock in global warming in Tiruchirappalli district, Tamil Nadu, India. Tamil Nadu has a livestock population of about 120.8 million, where Tiruchirappalli district contributes about 17.5 lakhs. GIS tools like Valore and Arc GIS are used for processing, monitoring and mapping of N<sub>2</sub>O and methane emission by livestock. Livestock excrement can be used as manure as it holds more nutrients that assist the growth of plants. Added to this, effective management and exploitation possibilities of animal waste for biofuel energy not only helps reduce waste going to landfills or from being released as gas into the atmosphere, but saves energy and money.

**Key words:** Geospatial technology, animal husbandry, N<sub>2</sub>O, methane, bio fuel.

## CONSTRAINTS OF ONLINE LEARNING AMIDST THE PANDEMIC IN RURAL AREAS

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### ABSTRACT

The threat brought about by Corona Virus or Covid 19 has made a huge impact on the education system of the world at large. The education system also affected highly; the poor with no internet access, financial constraints, lack of technological devices and lack of emotional support. Online education plays a crucial role in the current setting, where every student (especially in rural areas) doesn't have equal access to educational infrastructure. It levels the playing field for all students by providing them an equal and accessible platform to receive education. India houses 430 million children in the age group of 0-18 years with a majority of students residing in rural settings. The status of education in the rustic villages of India is deplorable, evidently.

There are several challenges faced by children and student alike, including archaic teaching methods, shortage of teachers, poor teacher-to-students ratio and outdated teaching material.

Although with the surge in digitization of education during the recent times, it has become plausible to mitigate the above-mentioned challenges. Providing multimedia teaching tools to teachers and students and utilizing smart classroom equipment like virtual classroom, digital board, digital teaching system, digital content, digital language lab, etc can help teachers boost education scenario in rural settings.

Even when the teachers and students in rural India have begun accepting the implementation of technology to deliver quality education, the basic ground realities pose as a barrier in the way of complete digitization of education. Poor infrastructure, lack of strong internet connectivity, no electricity, lack of safety and many such problems are still in need to be addressed in remote areas for a convenient access of quality education to students.

Though government has taken several initiatives in order to elevate the level of education via technology in rural villages, there is still a long way to go.

With the current scenario of Covid-19, it has become the need of the hour to resort to modern means of learning as most of the educational institutes have been shut since the end of March. There's a looming uncertainty about when the schools, universities and colleges can resume its functioning at a normal capacity. At such time, focus has been shifted to virtual education and online learning that provide limitless opportunities to students to receive education remotely. With the synergy of the public and private sector in education, rural areas have been equipped with multimedia teaching tools, digital classrooms and facilities to learn through e-lectures. This partnership also helps in mitigating the problem of shortage of teachers in schools.

**Keywords:** Online learning, Constraints, Rural areas, Pandemic, Covid-19

## **AGRO BASED INDUSTRIES**

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### **ABSTRACT**

Agriculture is the backbone of developing economies. Agro-based industry would mean any activity involved in cultivation, under controlled conditions of agricultural and horticultural crops, including floriculture and cultivation of vegetables and post-harvest operation on all fruits and vegetables. Agro based industries are depending on agriculture for their raw material and other basic inputs. This interdependence should be oriented to suit the need of our country and state. As the products of agro-industries are both edible and non-edible, the agro-industries can be classified as agro-food industries (or merely food processing industries) and agro-non-food industries.

The cumulative result of agricultural growth and growth of agro industries creates greater opportunities for industrial growth as well as the integration of the different sectors of the economy. Main agro based industries are the sugar industry, the cotton textile industry, oil industry, jute industry, food processing industry. Employment opportunity in the rural region of the country is increasing due to the establishment of more and more agro based industries. All branches of agro based industry are very important because they increase industrial products, provide employment, earn foreign exchange, increase income level and also provide employment to women and provide base for development for backward areas.

## **RURAL EMPLOYMENT BY SKILL DEVELOPMENT**

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### **ABSTRACT**

The main aim of rural individuals is to obtain good employment opportunities. This Research paper deals in areas that give new employment opportunities can be generated in rural areas. They possess. The rural individuals are engaged in number of employment opportunities. The rural employment basically focuses on the skilled based jobs as rural areas do not have so strong educational system therefore their live standard can be increased by developing their skills and with those skills they can easily get jobs. The main objective of this research paper is to acquire an efficient understanding of employment opportunities, in which rural individuals are engaged. The main areas that have been taken into account are, nature of unemployment in India, types of employment opportunities in rural communities, factors influencing children to get engaged in employment opportunities, and factors influencing the acquisition of employment opportunities.

**Keywords:** rural employment, development, skill development, opportunity

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**सारांश:-** इस तथ्य से इनकार नहीं किया जा सकता है कि भारत की विशिष्ट सांस्कृतिक छवि में हथकरघा और हस्तशिल्प की समृद्ध विरासत का बड़ा योगदान है। अतीत में बंधेज, जरदोजी,कांजीवरम, बोम्कई अथवा तंगेल की रंगबिरंगी धारियां, सुगंधित चंदन पर उकेरी जाने वाली चिताकर्षक छवियां, शिल्पकारों के हथौड़े से आश्चर्यजनक और विविध रूप आकार ग्रहण करने वाले धातुओं की कौंध तथा कालीनों और दरियों, बक्सों और झोलों, आभूषणों और पच्चीकारों की विविधता आदि हथकरघे और हस्तशिल्प ग्रामीण जीवन शैली के अहम हिस्से रहे हैं। भारतीय हस्तशिल्प में बहुत विविधता है। वर्तमान में शिल्पकार ग्रामीण और शहरी दोनों इलाकों में फैले हुए हैं। हस्तशिल्पों का ज्यादातर काम बिखरा और अनौपचारिक क्षेत्र में है। यह कार्य वरदान भी है और अभिशाप भी। महिलाओं के लिए यह एक वरदान है क्योंकि भी अपने घर में रहते हुए भी शिल्प का काम कर सकती है। काम की तलाश में उन्हें दर-दर भटकना नहीं पड़ता और अभिशाप इसलिए है कि बिखरे होने के चलते इसके उत्पादन की लागत बढ़ जाती है और उत्पादन और विपणन की कुशल श्रंखला विकसित करना मुश्किल हो जाता है। ग्रामीण विकास के इस चित्र में सतत उत्पादन और विपणन के लिए समन्वय एक बड़ी चुनौती है। समन्वय की जरूरत अब और जटिल हो जाती है जब बाजार में तरह तरह के उत्पाद आते हैं और शिल्पकारों की रचनात्मकता और कारीगरी का लाभ उठाकर मूल्य श्रंखला बनाई जाती है। ग्रामीण विकास के क्षेत्र में हस्तशिल्प सशक्तिकरण का एक महत्वपूर्ण औजार बन सकता है, अगर सरकार स्वयंसेवी संगठन शिल्पी मिलकर इस निमित्त संभावनाओं के सर्वोत्तम लाभ प्राप्त करने की दिशा में काम करें। इनके विकास के लिए सतत विश्वसनीय और सस्ते वित्त सुनिश्चित करने, कौशल प्रोन्नयन तथा रूपांकन में नवीन और उपयोगी प्रौद्योगिकी को इस्तेमाल करने संबंधी आवश्यक मुद्दों पर ध्यान देने की अत्यंत आवश्यकता है। आवश्यकता इस बात की भी है कि इस क्षेत्र के लिए धारणीय उत्पादन और विकास तथा शिल्पियों और बुनकरों के सशक्तिकरण की ओर भी ध्यान दें।

**बीज शब्द:-** हस्तशिल्प, हथकरघा, शिल्पकार, उत्पादन और विपणन।

## YOGA FOR RURAL WOMEN DURING COVID19 PANDEMIC

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### **Abstract**

In this article, an attempt is made to suggest the Yoga for rural women during Covid19 Pandemic. Our world is experiencing global Covid-19 Pandemic, caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Rural women are more likely to suffer from health problems than urban women. This is mainly due to insufficient medical facilities, distance from clinics, and insufficient knowledge of diseases during this pandemic. Among rural women, the prevalence of back pain, osteoporosis, obesity, diabetes, anemia, respiratory problems and reproductive health problems are higher. Moreover, rural women are also affected by physical distancing, quarantine and nationwide job closures. Some women may feel lonely, anxious, stressed and uncertain. Since there is no vaccine for Covid19, improving Physical health and mental health of rural women is the only way to fight against this virus. Hence this article suggests some Yogic practices that women should follow to improve immunity, builds muscle strength, betters bone health and to protect spine. So, women in rural area should actively involve themselves on yogic practices to encounter the challenges during this Covid-19 Pandemic.

**Key words:** Yoga, Rural women, Covid19 pandemic, Physical Health, Mental Health.

## **MIGRATION IN INDIA AND THE IMPACT OF THE LOCKDOWN ON MIGRANTS**

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### **ABSTRACT:**

India has been in lockdown since March 25, 2020. During this time, activities not contributing to the production and supply of essential goods and services were completely or partially suspended. Passenger trains and flights were halted. The lockdown has severely impacted migrants, several of whom lost their jobs due to shutting of industries and were stranded outside their native places wanting to get back. Since then, the government has announced relief measures for migrants, and made arrangements for migrants to return to their native place. The Supreme Court of India, recognizing the problems faced by migrants stranded in different parts of the country, reviewed transportation and relief arrangements made by the government. On June 9, the Court directed central and state governments to complete transportation of remaining stranded migrants and expand focus of relief measures to facilitate employment for returning migrants. In this paper, we highlight some facts about migration in India, summaries key relief measures announced by the government and directives issued by the Supreme Court for the migrant population in relation to the lockdown.

Key Words: Lockdown, migrants, return, problems, measures.

## **DEVELOPMENT OF ECO-TOURISM IN INDIA**

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### **ABSTRACT**

Tourism sector drives economic growth, contribute foreign exchange, enhance employability and economic development in the country. The World Travel and Tourism Council calculated that tourism generated ₹16.91 lakh crore (US\$240 billion) or 9.2% of India's GDP in 2018 and supported 42.673 million jobs, 8.1% of its total employment. The novel corona virus (COVID-19) is having a 'deep impact' on Indian businesses, over the coming month's jobs are at high risk because firms are looking for some reduction in manpower. The COVID-19 pandemic caused an unprecedented collapse in economic activities over the last few weeks. Tourism sector also hits worse with this pandemic. Ecotourism is a new way of exploring the natural environment without damaging the resources. India is a source destination of ecotourism due to its rich cultural and geographical diversity. It promotes economic growth without changing or damaging environment. The present paper evaluates the role of ecotourism in India's economic development. The paper also tries to discuss various Indian ecotourism places and their importance. The main benefit of this type of tourism is that local communities, especially those that do not thrive by industrial means, could benefit greatly from tourists who respect their lands while providing additional funding.

**Keywords:** Ecotourism, Economic development, Tourism sector etc.

## ROLE OF REGIONAL RURAL BANKS IN RURAL DEVELOPMENT

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### ABSTRACT

Banking plays a vital role in the growth and development of developing countries like India. Banks lubricate the entire monetary and financial system and ensure smooth operations. Nearly 70% of the total of Indian population lives in rural areas. For the development of Indian economy, there is a need for the development of the rural areas. For the purpose of rural development, there is a need for the banking system in rural areas which provide credit at lower and at reasonable terms to the rural households unlike traditional moneylenders which exploit the rural people by providing loans at a very high interest rate which leads to rural people were unable to repay loans given by moneylenders and lost everything and also commit suicide. To avoid all those negative consequences, the government appoints a working group on rural credit, the Narasimhan committee. On the basis of recommendations given by the Narasimhan committee, regional rural banks were established. The main objective behind the establishment of these banks is the development of agriculture, trade, commerce, industry and other productive activities in the rural areas particularly in those areas where banking services does not exist and make available cheaper institutional credit to the weaker sections of the society. This research paper throws light on the need of banking system in rural areas and significant role played by banking system in the development of rural areas and discusses about the problem faced by regional rural banks in India and suggestions to overcome the problems. This study is based on the secondary data collected from the annual reports of NABARD. This study finds and concludes that the RRBs play a very important role in the development of rural areas.

**Keywords:** Regional Rural Banks, NABARD, Rural Development, Monetary System, Financial System

## **SOCIAL ECONOMIC DEVELOPMENT.**

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### **ABSTRACT**

Social economics is a branch of economics and a social science that focuses on the relationship between social behavior and economics. Social economics uses history, current events, politics, and other social sciences to predict social trends that could potentially impact the economy. It examines how social norms, ethics, emerging popular sentiment, and other social philosophies influence consumer behavior, and thus shape public.

**Key words of social economics:** Socio-economic development is measured with indicators, such as, life expectancy, literacy and levels of employment.

## **INTRA-DISTRICT DISPARITIES IN THE AVAILABILITY OF ELECTRICITY AMONG THE ELEMENTARY SCHOOLS - A CASE STUDY OF JORHAT DISTRICT OF ASSAM, INDIA**

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### **ABSTRACT**

Electricity is one of the most important inventions of Man. The availability of electricity varies from region to region. The regions which lack electricity are facing lots of problems. One of the most important outcomes that have been affected by electricity is Education. However, among all Levels of Education, it is the Elementary Education whose access to electricity is in worst condition.

According to HRD Minister of India - Mr. R.P Nishank, "only 63.14 percent Elementary Schools of India have the Access to Electricity". Where he also mentioned - Assam has the least number of schools with electricity (24.28%) followed by Meghalaya (26.34%). On the other hand, Dadra & Nagar Haveli and Lakshadweep has cent percent schools with electricity. This implies that the availability of electricity in the Elementary schools of India varies from region to region. Jorhat district of Assam which is the locale of this study is also not different in this regard. There are 05 Education Blocks in Jorhat district and there exist huge variation in terms of availability of electricity. Therefore, this paper is an attempt to highlight the Intra - District Disparities in availability of electricity among the Elementary Schools of Jorhat.

**Keywords:** Elementary Education, Electricity, Intra-District Disparity.

## ग्रामीण विकास (हथकरघा एवं हस्तशिल्प)

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**सारांश:-** इस तथ्य से इनकार नहीं किया जा सकता है कि भारत की विशिष्ट सांस्कृतिक छवि में हथकरघा और हस्तशिल्प की समृद्ध विरासत का बड़ा योगदान है। अतीत में बंधेज, जरदोजी, कांजीवरम, बोम्कई अथवा तंगेल की रंगबिरंगी धारियां, सुगंधित चंदन पर उकेरी जाने वाली चिताकर्षक छवियां, शिल्पकारों के हथौड़े से आश्चर्यजनक और विविध रूप आकार ग्रहण करने वाले धातुओं की कौंध तथा कालीनों और दरियों, बक्सों और झोलों, आभूषणों और पच्चीकारों की विविधता आदि हथकरघे और हस्तशिल्प ग्रामीण जीवन शैली के अहम हिस्से रहे हैं। भारतीय हस्तशिल्प में बहुत विविधता है। वर्तमान में शिल्पकार ग्रामीण और शहरी दोनों इलाकों में फैले हुए हैं। हस्तशिल्पों का ज्यादातर काम बिखरा और अनौपचारिक क्षेत्र में है। यह कार्य वरदान भी है और अभिशाप भी। महिलाओं के लिए यह एक वरदान है क्योंकि भी अपने घर में रहते हुए भी शिल्प का काम कर सकती है। काम की तलाश में उन्हें दर-दर भटकना नहीं पड़ता और अभिशाप इसलिए है कि बिखरे होने के चलते इसके उत्पादन की लागत बढ़ जाती है और उत्पादन और विपणन की कुशल श्रंखला विकसित करना मुश्किल हो जाता है। ग्रामीण विकास के इस चित्र में सतत उत्पादन और विपणन के लिए समन्वय एक बड़ी चुनौती है। समन्वय की जरूरत अब और जटिल हो जाती है जब बाजार में तरह तरह के उत्पाद आते हैं और शिल्पकारों की रचनात्मकता और कारीगरी का लाभ उठाकर मूल्य श्रंखला बनाई जाती है। ग्रामीण विकास के क्षेत्र में हस्तशिल्प सशक्तिकरण का एक महत्वपूर्ण औजार बन सकता है, अगर सरकार स्वयंसेवी संगठन शिल्पी मिलकर इस निमित्त संभावनाओं के सर्वोत्तम लाभ प्राप्त करने की दिशा में काम करें। इनके विकास के लिए सतत विश्वसनीय और सस्ते वित्त सुनिश्चित करने, कौशल प्रोन्नयन तथा रूपांकन में नवीन और उपयोगी प्रौद्योगिकी को इस्तेमाल करने संबंधी आवश्यक मुद्दों पर ध्यान देने की अत्यंत आवश्यकता है। आवश्यकता इस बात की भी है कि इस क्षेत्र के लिए धारणीय उत्पादन और विकास तथा शिल्पियों और बुनकरों के सशक्तिकरण की ओर भी ध्यान दें।

**बीज शब्द:-** हस्तशिल्प, हथकरघा, शिल्पकार, उत्पादन और विपणन।

## RECENT ADVANCES IN GEOSPATIAL TECHNOLOGY AND ITS ROLE IN RURAL DEVELOPMENT

Yameen Khan

Topic-Recent Advances in Geospatial Technology and its role in rural development.

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### ABSTRACT

Geospatial technology is a blend of computer hardware and software to analyse and visualize spatial data. The mapping techniques employed in GIS has evolved into an intelligent mapping system that can support various fields of inquiry. It gives real time perspective upon project management. The economically advanced countries have already embraced Geospatial Technology to serve as a standard framework for project management. The economically advanced countries have already embraced Geospatial Technology to serve as a standard framework for project management. Geospatial technologies is a term used to describe the range of modern tools contributing to the geographic mapping and analysis of the Earth and human societies. These technologies have been evolving in some form since the first maps were drawn in prehistoric times. Computers allowed storage and transfer of imagery together with the development of associated digital software, maps, and data sets on socioeconomic and environmental phenomena, collectively called geographic information system .

**Keywords:** Geospatial technology, Mapping techniques, advanced countries, technologies, Computers.

## **NATURE FARMING: BACK TO NATURE**

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### **ABSTRACT:**

Nature farming (NF) is a modern and a sustainable form of agriculture that provides consumers fresh natural farm products. NF works in synchronization with nature rather than against it. This objective is achieved by using techniques to improve crop yields without harming the natural environment as well as the people who live and work in it. Natural agriculture (NA) offers an exclusive amalgamation of environment-friendly practices, which require low external inputs, thereby contributing to increased food availability. NF has a very positive influence especially on birds, insects, weeds, wildlife, and soil flora and fauna. Chemical farming is capital intensive which requires more manufactured inputs and energy as compared to knowledge and labor-intensive NF. NA uses energy more competently than conventional agriculture. As compared to conventional agriculture, NF produces cost-effective food products, free of synthetic fertilizers and pesticides. It also provides employment opportunities and economic benefits to local communities. The methods utilized in organic farming are more costly and labor intensive, but prove to be more cost effective in the long run. Since natural agriculture supplies more greenhouse gases in the soil, the farmers across the globe can solve the climate disaster by switching to natural methods. In addition, or natural agriculture has the potential to address food security issues. Enough evidence is available to prove that natural crops are a better source of nutrients than their corresponding chemical forms. Natural systems give higher animal immunity and increased disease resistance to plants, with 50% less mycotoxins in crops and a persistent shelf life. Natural foods have more plant secondary metabolites, higher micronutrient content, and more conjugated fatty acids for better human health, including lower incidences of non-communicable diseases. NA merges modernism, custom, and science to manage the shared surroundings encouraging fair relationship and high quality of life for everyone involved.

**Keywords:** Nature Farming, chemical farming, sustainable, organic agriculture, environment - friendly etc.

## **A STUDY ON CHALLENGES AND ISSUES OF WOMEN EMPOWERMENT IN RURAL AREA OF PUNJAB**

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### **ABSTRACT**

Women play great role in development of society as a whole. Without the social and economic contribution of women the society of any region cannot grow. Women Empowerment is empowering or allowing women to take decisions of the life and do what they want to do. Women empowerment is more crucial and important to development of any country. But despite of development in the country women are still facing issues and challenging in the society. For the study in depth interviews are conducted with rural women and results are generated. So this study is an attempt to explore the challenges and issues in the rural area of Punjab. Many challenges are still faced by women in rural area of Punjab. The study also suggests some ways to improve the condition of women in rural area of Punjab.

**Keywords:** Challenges, Development, Empowerment, Punjab, Rural, Women.

## INDIRECT IMPACT OF COVID-19 ON ENVIRONMENT: A BRIEF STUDY IN LUCKNOW CONTEXT

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### ABSTRACT

Worldwide spread of COVID-19 in a quite short time has brought a dramatic decrease in industrial activities, road traffic and tourism. Restricted human interaction with Positive and negative indirect effects of COVID-19 on the environment. Increased waste and the reduction of recycling are negative side effects of COVID-19 during this crisis time have appeared as a blessing for nature and environment. Reports from all over the world are indicating that after the outbreak of COVID-19, environmental conditions including air quality and water quality in rivers are improving and wildlife is blooming. The environment is an integral component of human and animal health. The Covid-19 pandemic has huge impacts on huge aspects of human activities, reduction in air pollution through decreases and travel production. Environmental degradation was happening fast due to the depletion of resources such as air, water and soil. But after the coronavirus lockdown commenced, there have been slight changes in the environment. Effects on vegetation, The water quality became so clear that the fish could be seen and there was better water flow. No doubt, because of the lesser human footfall even the oceans are recovering and marine life is thriving. Effects on wildlife, **The environment is cleaner since the lockdowns kicked in, and may never get as bad as before.** Economic rebalancing and its ill effects.

**Keywords:** covid-19, Pandemic situation, Lockdown, air pollution, noise pollution, water and rivers. Vegetation, Effects on wildlife.

## **RURAL DEVELOPMENT AND ECONOMY BY ECO-TOURISM: A CASE STUDY ON INDIA**

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### **ABSTRACT**

Rural Development is a process or method to improve the economy and lifestyle of rural people. It is the techniques to improve the well being and lifestyle of the people who living outside the urban areas. There are many process to develop the rural areas in India, Eco-Tourism is one of the process for Rural Development.

Eco-Tourism is another branch of rural tourism, as a nature based tourism. It improves education, interpretation of the nature and sustainable development.

The major eco-tourism places are in India in the state of Kerala. Other major eco-tourism sites are found in Sikkim, Assam, West Bengal and Meghalaya. Himachal Pradesh- Kangra Valley, The Spiti Valley, Gujrat- Great Rann of Kutch, West Bengal- Sundarbans and also in Uttarakhand. The World Bank and Global Environment Facility (GEF) also support for Eco-Development Project in India.

Eco-tourism is the alternative tool for development the rural community in the terms of employment, income and training. It provides jobs to young people, helps to preserve local traditions, culture and it is the big way to earn household income. Agricultural Tourism, Cultural Tourism, Nature Tourism and Adventure Tourism are the major types of rural tourism in India. The rural tourism has been grown economy in India to the National Gross Domestic Product being 6.3% and total employment 8.3% in India. Rural Tourism was first introduced in our country by The National Tourism Policy and 103 Projects during Tenth Five Year Plan.

Inadequate infrastructure, lack of financial support are some challenges for rural eco-tourism.

**Keywords:** Rural Development, Eco-Tourism, Places of Rural Tourism in India, Rural Economy, Challenges.

## **REASONS OF BACKWARDNESS OF RURAL PEOPLE & SOME SUGGESTIONS FOR BETTERMENT**

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### **ABSTRACT**

This paper investigates about the reasons of poor and bad conditions in rural areas and some proffers are explained briefly for improvement of economic condition. The purpose of this research is to highlight the problems of inhabitants are; backwardness of rural areas, their earning resources, low chances of income, low literacy rate, low level of industries, low infrastructure, low income of agricultural sector, large families, rigid rites and culture, joint families, family clash, large number of dependents, and landlord system of these areas because of these problems poverty and miserable conditions are increasing day by day with the passage of times. Therefore, it is mandatory and crucial to solve all these problems. For this, first of all change of infrastructure of rural areas and increase the sources of income are necessary. This is true that economic condition of rural people cannot change easily in the shorter period. So, for changing of economic life rural areas must be declared as tax free zones for encouraging investors to set up industries in these backward areas for promotion of employment opportunities for increase their incomes. This will tend to promote their standard of living of these areas. In this way, rites and culture of these areas will also develop that will decrease the difference of rural and the urban areas.

**Keywords:** Rural Areas; Backwardness; Suggestions; Economic condition; promotion of living style.

## कोविड-19 के समय संधारणीय विकास लक्षप्राप्ती में निर्माण हुवी समस्याओ का विस्तृत विश्लेषण

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### सारांश

कोविड -19 के संक्रमण को फैलने से रोकने के लिए भारत में देशव्यापी लॉकडाउन 24 मार्च 2020 को किया गया और देश में निरंतर बढ़ते मामले की वजह से लॉक डाउन की समयावधि परिस्थितिनु रूप बढ़ाई गयी कोविड-19 की वजह से समूचे विश्व में हाहाकार मचा हुआ है। आज लोगो की जीवन शैली जरूरी चीजे रहन सहन कामकाज तरीके में नए बदलाव कर दिए गए है। समूचे विश्व का कायाकल्प करने हेतू संधारणीय विकास लक्ष 2030 का अजेंडा विकास के एक भाग के रूप में सितम्बर 2015 में स्वीकार किया गया। भारत देश 17 संधारणीय विकास और 169 संबध लक्ष को हासील करने में प्रतिबध्द है जो व्यापक रूप से विकास के सामाजिक आर्थिक और पर्यावरणीय आयाम को कवर करते है। आज समूचे विश्व में कोविड-19 के फैलते संक्रमण ने भीषण रूप धारण कर लिया है। कोविड-19 के संक्रमण के चलते समूचे विश्व में संक्रमण कि स्थिती को देखते हुवे संक्रमण कि गती धिमी करनेकी कोशिशें तेजी से सुरु होने लगी। कोविड-19 संक्रमण का असर संधारणीय विकास लक्षप्राप्ती में बाधा हुवी इस बात को ध्यान में रखते हुवे संधारणीय विकास लक्षपर सामाजिक, आर्थिक और पर्यावरणीय पहलुओं में परस्पर जुड़े हुए हैं। गरीबी, भुखमरी, शिक्षा, स्वास्थ्य और खुशहाली, शिक्षा, लैंगिक समानता, जल एवं स्वच्छता, ऊर्जा, आर्थिक वृद्धि और उत्कृष्ट कार्य, बुनियादी सुविधाएं, उद्योग एवं नवाचार, असमानताओं में कमी, संवहनीय शहर, उपभोग एवं उत्पादन, जलवायु कार्रवाई, पारिस्थितिक प्रणालियां, शांति एवं न्याय और भागीदारी। इस समग्र एजेंडा में माना गया है कि अब केवल आर्थिक वृद्धि पर फोकस करना पर्याप्त नहीं है, बल्कि निष्पक्ष और अधिक समतामूलक समाजों तथा अधिक संरक्षित एवं अधिक संपन्न पृथ्वी पर फोकस करना होगा।

## AT PRESENT STATUS OF URBAN LOCAL GOVERNMENT IN TAMIL NADU WITH SPECIAL REFERENCE TO NAMAKKAL DISTRICT

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### Abstract

Tamil Nadu is one of the oldest state in the Southern Part in India, It's having a long history and culture. It comprises out of 7.21 core population 3.5 core population are living in the urban side it consists of 48.45% state population are there in Tamil Nadu. Urban local bodies consist of 10 Municipal corporations, 148 Municipalities, and 561 Town Panchayats. Out of this Namakkal district is one the district it consists of 5 Municipalities and 19 Town Panchayats. This research paper is going to know the history of urban local government in Tamil Nadu, additionally, inspect the current status of urban local government what are the issues are facing urban local government in particular in Namakkal district, finally is going to give some suggestion and solutions to rectify this issue.

**Keywords:** Culture, History, Local Government, Population, Urban Government

## GEOLINGUISTICS AND IT'S ADVANCES IN LINGUISTIC MAP MAKING

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### ABSTRACT

The present study aims at focusing on the linguistics domain of map making. It is one the emerging fields in the discipline of sociolinguistics. The field of linguistics has been of immense interest to the geographers, however, it is lately in the recent ages that the use of GIS has been applied to this field. An exploration of linguistic map making has come into use in recent decade to allow the efficient analysis of spatial linguistic data. Language cartography is the emerging field in geolinguistics, where by involving, geography, linguistics and psychology, as the multifaceted contributing factor to determine the inclusion of GIS applications in the work of language cartography.

To bridge the gap between the existing capacities of map making and the possible advancements in the future, the present paper endeavors to explore on reviews of the geolinguistic studies incorporating the tools and techniques of GIS. This article reflects on the future role of GIS in school of geolinguistic thought highlighting its practices.

Geolinguistics being an interdisciplinary field brings in every aspect of a linguistic behavioral analysis. It is more inclined towards the spatial representation of the linguistic behavioral data. This type of work is of vital significance to a linguist as it not only determines the locale of the surveyed population but also supplements in the policy making activities of the government to uplift the deterred zones of any geographical area. This is in relevance to rural development as well, where advanced equipment of distribution of knowledge and education is discrepant in nature.

**Keywords:** geography, language, map making, language behavior, geolinguistics

## EMPLOYMENT OPPORTUNITY IN INDIA POST: COVID19

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### ABSTRACT:

Employment is one of the major issue for our Nation. Now-a-days the scenario is very bad due to the pandemic situation. The USA related corporate sector jobs are not as available as before. And also the government sector jobs are very hard to get, and also the vacancies are limited. The chance of getting good and handsome jobs are very poor. The majority of the jobs are degrading day by day due to COVID19. But the job market is now growing slowly and the chance of getting jobs for all type of candidates are growing steadily also. In this paper, a scenario is given about the job opportunity as well as the past record during COVID19. Government also encouraging the candidates to become an entrepreneur. In this global challenge, the good news is that the market is exponentially increasing day by day not only for the skilled but also for the unskilled personals.

**Keywords:** Employment, COVID19, entrepreneur, unskilled personal, skilled personal.

## **DRINKING WATER, HYGIENE SANITATION AND WASTE MANAGEMENT IN RURAL INDIA**

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### **ABSTRACT**

‘Water is Life’. This statement contains the life cycle of every living creature on earth. The Mother Nature gives water for survival but due to carelessness, humans are contaminating it continuously without considering the future generations. There is a very strong nexus among clean drinking water, hygiene sanitation and waste management, related to water pollution which is the most concerned global environmental issue since last few decades. Absence of proper hygiene sanitation facilities which forces people to open air defecation and thus contaminating drinking water in rural areas is a major threat to rural health. Lack of waste management mechanism, irregular collection of liquid and solid wastes and improper disposal of wastes in dumping grounds, result water as well as environmental pollution. Many international and national controlling measures have been taken to control water pollution but most of the countries are yet to taste the success. Right to clean and pollution free water is included in ‘Right to Life’ in the Indian Constitution under Article 21 and hence it is the duty of the Government and the Judiciary to secure it. In this regard, Swachh Bharat Mission has been launched to have a cleaner India. Besides these, many laws, regulations, schemes, committees etc. have been introduced to minimize water pollution; implementation and execution of these should be the foremost concern along with the awareness among people. No doubt, water is the base of any living organism to grow and if people selflessly uphold the quality, they can preserve the purity of water for them and surely for their children.

**Keywords:** Water Pollution, Sewage Discharge, Night Soil Disposal, Open Defecation, Waste Management.

## **TEA INDUSTRY: THE FLAVOUR IT ADDS TO RURAL**

### **SOCIO-ECONOMIC DEVELOPMENT**

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#### **ABSTRACT**

Tea, which is ‘a cup of life’ for many people, is the most popular drink of the world for its taste and health benefits. The best quality tea and tea products are always in high demand in the world market. India is the largest tea producer and consumer in the world and the tea industry of West Bengal ranks second in the country after Assam. Tea industry plays a prominent role in rural socio-economic development. Rural development refers to the process of enhancing the quality of life and socio-economic well being of people living in relatively isolated and scattered populated areas. The tea industry is one of the old agriculture based industries and has become an economical backbone in tea cultivation areas by sharing a sound portion of the country’s exports. Due to its labour intensive nature, tea industry is a major source of rural as well as urban employment and hence contributes significantly to the betterment of the socio-economic life of people. In spite of that it is facing several threats in the forms of the climate change, the effects of deforestation, water shortages and demand for fair wages from workers and not only governments but people should also be aware of these problems tea industry is suffering from. Notwithstanding enacted laws and regulations, Central and State governments should take and implement proper and urgent remedial measures to save this key industry with the objective to sustain continuous rural socio-economic development.

**Keywords:** Tea plantation, Tea industry, Rural development, Employment opportunities, Labour strike.

## REMOTE SENSING AND GEOGRAPHIC INFORMATION SYSTEM USING FOR WATER RESOURCES MANAGEMENT FOR BANDAMA WATERSHED: CASE STUDY OF KOHOUA SUBWATERSHED AT FARANDOUGOU

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### ABSTRACT

Nowadays, studies on water resources management are quite important. This study on a subwatershed of the Bandama River in Côte d'Ivoire got a better understanding of the geomorphological characteristics of the study area. The use of satellite images and geographic information systems tools allowed responding appropriately the management of water resources. The Digital Elevation Model (DEM) of the Farandougou subwatershed, the Bandama river hydrographic network and the geostatistical analysis of this subwatershed have been shown and interpreted in this study. The area's elevation is between 0 and 700 meters approximatively. The value of river length minimum is around 11273.091 meters and the value of river length maximum is around 44415.180 meters, the coefficient of variation is around 0.462 for example. The geostatistic of Kohoua at Farandougou has given also mean of 449.621 meters, mediane of 441 meters, variance of 3040.996 meters and standard deviation of 55.145 meters. The majority of the Kohoua subwatershed area has an elevation around 410 meters versus the minority around 715 meters.

**Keywords:** Geomorphological, Bandama, satellite, river, elevation

## TRANSCENDENTAL AESTHETIC: EVERYTHING TO BE PERCEIVED THROUGH SPACE AND TIME

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### ABSTRACT

Kant's Masterpiece 'Critique of Pure Reason' plays an important role i.e. how to know sensing, how a priori sensing be possible.

Kant's 'Critique of Pure Reason', in the part of 'Transcendental Aesthetic,' he didn't discuss about beauty or something related to that. Rather he discussed about a priori forms of sensibility.

According to Immanuel Kant, knowledge is a joint production by percepts and concepts. Before Kant, Hume said that propositions of mathematics and physics are universal, it is because that they only deal with analysis and those do not deal with any state of affairs. They are purely conceptual. In other hand, Kant convinced that they are synthetic. According to Kant in physics and mathematics, propositions are derived from perceptual experiences, they are based on a priori perception of space and time.

A perception can be either empirical or pure. An empirical perception is derived from sense experiences. Alike a pen or a flower etc. A pure perception can not be derived from sense experiences. But 'pure perception' is the basis or presupposition of sense experiences. Example is space and time.

"According to Kant, space and time are the a priori percepts on which all other empirical perceptions are based. Hence, for him the statements that judgements of mathematics are synthetic means that ultimately they are based on a priori percepts of space and time." (Y. Masih- 'A Critical History of Modern Philosophy'; page-211).

Acquiring knowledge of objects in this World, we do it by colouring them, modifying them, changing and transforming them that is spacing and timing. Without doing this, we can not access knowledge of objects. This is how by spacing and timing knowledge of phenomena is possible.

Key Words: Rationalism, Sensation of objects, a priori forms of sensations, synthetic a priori sensations, space, time, knowledge formation of phenomenons.

## **A Study of Economic Status of Tribal and Rural Society in Dahod District- Gujarat**

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### **Abstract**

Gujarat ranks sixth in India with 196024 sq. km. geographical area. It ranks 9th in India with a 60.4 million population. In India, 50.5 percentage of the population lives in villages. Most of them are involved in agriculture and animal husbandry. Gujarat is unique in India in terms of geographical diversity. It is divided into six different regions based on geographical uniformity. Gujarat has 57.4 percentage rural population. In Dahod district, 91 percentage people live in villages. 17% of the total tribal population of Gujarat lives in Dahod district. For the study, 14 villages of three talukas have been randomly selected from Dahod district, which has the highest tribal population in Gujarat. The study of primary and secondary information is studied by different statistical as well as cartographic methods. According to the results obtained in this research, the economic status of the people depends on agriculture, labor and wild products. In this research, we have tried to understand the economic status and its structure of the people in the tribal-rural areas of Gujarat.

### **Keywords**

Economic Status, Tribal and Rural Society, Dahod District, Gujarat

## **DEVELOPING A DYNAMIC FORECASTING MODEL USING DEEP LEARNING & TENSORFLOW**

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### **ABSTRACT**

In this research a Dynamic Deep Learning Model was developed to predict and forecast COVID19 Cases using Dynamic Data from [www.covid19india.org](http://www.covid19india.org). Data was remodeled and Case Fatality Rate (CFR) for each state were calculated and predicted for 2 weeks. In a State Predicted CFR > 10% then lockdown should be done. Unlock should be initiated when CFR < 2%

**Keywords:** Dynamic Model, COVID19, CFR Prediction, Machine Learning, Prophet

## RECENT TRENDS AND DEVELOPMENT IN GEOSPATIAL TECHNOLOGY:

### A KERALA PERSPECTIVE

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#### Abstract

Geospatial technology or Spatial information technology is a major multi disciplinary field that is gaining prominence in recent decades as it is used for different applications of topographic mapping, Hydrology, Transportation, Disaster management, Agriculture, Rural and Urban development. The field of Geospatial technology is constantly evolving and its dynamicity is owing to the newer technological changes are happening in its branches of remote sensing, GIS(Geographic Information System), Photogrammetry, Global Positioning System and Aerial photography as well as the dynamicity of certain disciplines. The present study area is the state of Kerala in India where the Geospatial technology is gaining prominence as it is used for acquiring, mapping, storing and analyzing of various applications of public health, disaster risk management, urban and rural development, transportation, education and this study also gives an insight into the newer technologies inducted into the mapping prospects of Kerala. The data was collected mainly from secondary sources and they are government publication, reports and government websites like Kerala GeoPortal. The result of the study shows that geospatial technology has been immensely used in Kerala for various applications of Disaster risk management, Public health, Transportation, Education, Utility mapping, Landuse mapping, Tourism, Rural and Urban development and the field of Geospatial technology have also developed due to the advent of various technological aspects and tools like LiDAR( Light Detection and Ranging) remote sensing, Drone Surveying, GPS( Global Positioning System) mapping, Web GIS and the most important of all is the development of a Web Geospatial data directory called the Kerala GeoPortal which contains Geospatial data of the Kerala state. The Geospatial data has thus been fruitful for the successful implementation of policies and programmes in Kerala.

**Keywords:** Photogrammetry, Kerala GeoPortal, Geospatial data, Web GIS

## **ROLE OF AGRICULTURE IN INDIAN RURAL DEVELOPMENT**

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### **Abstract:**

Agriculture plays an important and vital role in any economy generally, for developing countries particularly and for a country like India especially. Over 70 per cent of the rural households depend on agriculture. Agriculture is an important sector of Indian economy as it contributes about 12% to the total GDP and provides employment to over 50% of the population. Hence, yet it is still the largest employment source and a significant piece of the overall socio-economic development of India. The agriculture sector of India has occupied more than 45 percent of India's geographical area.

**Keywords:** Agriculture, Economy, Livelihoods, GDP, Rural community, Rural development

**M/S GEOSPATIAL MAPPLE**

*Lucknow, U. P. India*

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