

A.P.C. MAHALAXMI COLLEGE FOR WOMEN THOOTHUKUDI - 2



CRITERION 3

SSR CYCLE IV

RESEARCH, INNOVATIONS AND EXTENSION

3.3. Research Publication and Awards

3.3.2.1: Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year wise during last five years



To whomsoever it may concern

I hereby declare that the following details and documents are true to the best of my knowledge. They have been checked and verified.

3.3.2. Number of books, chapters and papers in conference proceedings

S. No	Academic Year	No. of Books	No. of Chapters	No. of Conference Proceedings	Total
1	2022-2023	23	25	43	91
2	2021-2022	09	16	19	44
3	2020-2021	14	10	25	49
4	2019-2020	16	15	29	60
5	2018-2019	02	06	06	14



5. AUNNUAS

(Dr. K. SUBBULAKSHMI)

Principal i/c Principal A.P.C. Mahalaxmi College for Women Thoothukudi

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2020-2021 Chapters

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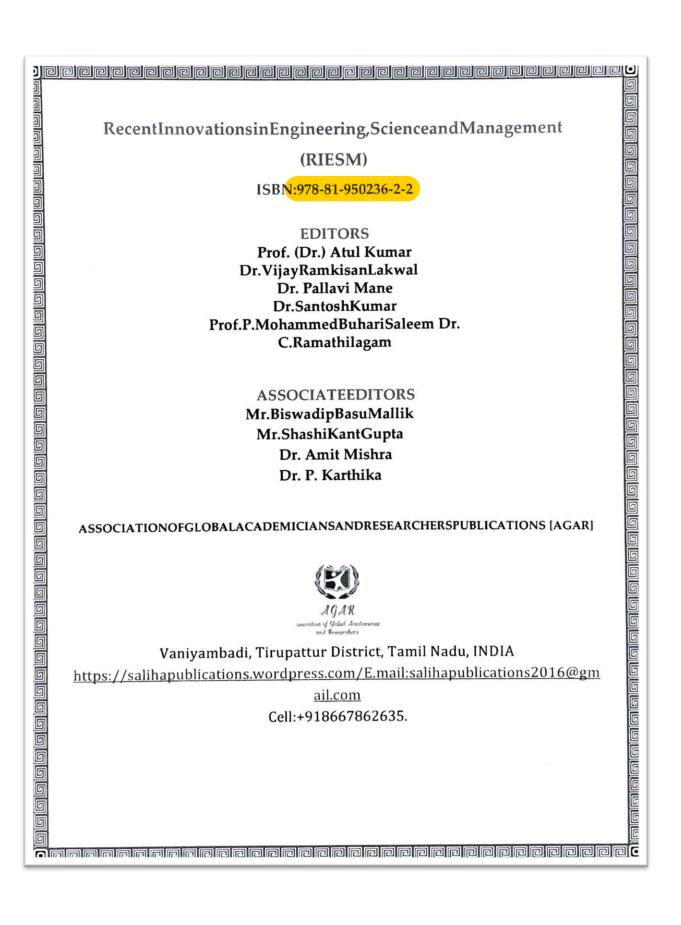


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ANALYSISTHEANTIBACTERIALEFFECTOFLEAVESOFNYCTHANTHES ARBOR-TRITIS ON ESCHERICHIA COLI

V.Jeyanthikumari

AssistantProfessorofZoology<mark>,A.P.C.MahalaxmiColle</mark>geforWomen,

Thoothukudi

ABSTRACT

In the present study, the experimental bacteria*E.coli*was isolated from sewage sample using decimal dilution followed by streaking on the selective media Eosine Methylene Blue (EMB). The metallic sheen*E.coli*was taken to analyse the antibacterial effect of ethyl acetate extract of leaves of*N.arbor-tristis*. The ethyl acetate leave fraction possessed higher antibacterial activity (7±0.09. Among varied fractions used, the MIC was increased as the volume of the extraction is increased. The results obtained herein support the traditional medicinal use of*N.arbor-tristis*, and provide grounds for further establishment of its use.

Key words: N.arbor-tristis, MIC, EMB, Ethyl acetate. INTRODUCTION

Behind the discovery of many diseases, it has become important to bring our rare species of plants and antimicrobial agents forthose dreadful diseases (Hawkey 2008; Jemalet al., 2011).The phytochemical analysis of many plants emphasized that the secondary metabolites are bioactive compounds with medicinal propertieslikeantibacterial,antifungal,antioxidant,antidiabetic

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2. Dr. V. Jeyanthi kumari- Resent Trends in Applied Sciencse and Computing Engineering- Microbial Degradation of Cellulosic Substrates by Bacillus SP, Vibrio SP and Pseudomonas SP



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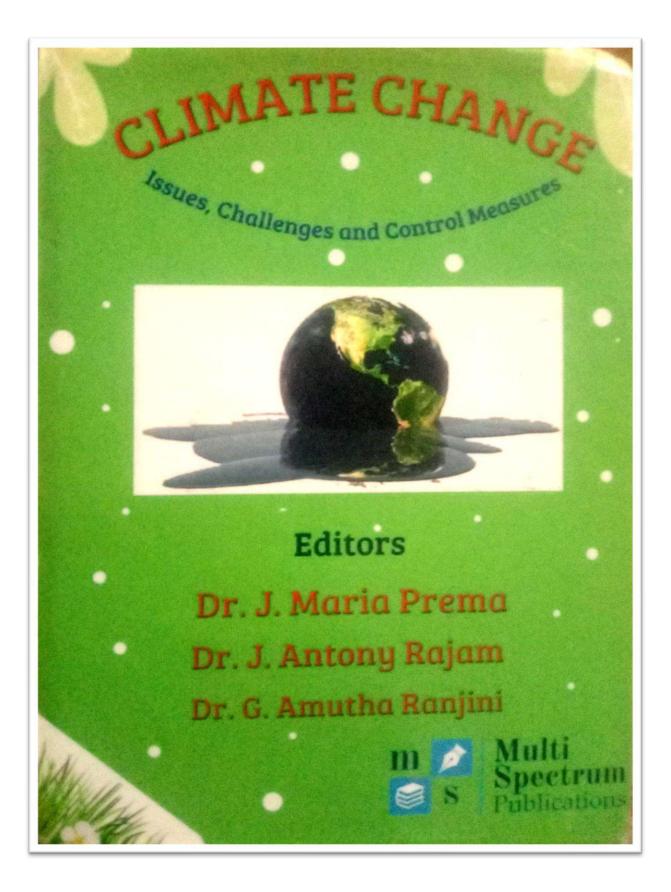
Dr.V. JEYANTHI KUMARI, Assistant Professor of Zoology Department of Zoology A.P.C. Mahalaxmi College for women, Thoothukudi. M.MANGAYARKARASI III Year Student of Zoology Department of Zoology A.P.C. Mahalaxmi College for women Thoothukud

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3. M. Vijayalakshmi - Climate Change



Climate Change

Issues, Challenges and Control Measures

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Sugumar, MES., Ph.D.,

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FOREWORD

Climate change is not just a recent phenomenon but a real and dynamic one since the Earth was formed. Earth's climate has changed dramatically several times and the changes have been ingered by the changing configuration of continents and oceans, changes in the Sun's intensity, ingered by the orbit of Earth, and volcanic eruptions. There weren't just the warming alone but ice ges have also happened many times and the latest being 2.6 million years ago during the flexitocene period as glaciers covered most parts of the earth and reported to have lasted for over 1.500years.

Presently we are confronted with a situation when the population explosion has necessitated industrialization that resulted in high emission of greenhouse gases such as carbon bloxide methane, carbon monoxide, and nitrous oxide in the atmosphere to rise the temperature atamingly to cause impacts that further accelerated destruction of ecosystems threatening the heath of the planet itself. Destruction of forests and the burning of fossil fuels and unscrupulous disposal of insiste including plastics have to be reduced considerably to reduce the emission of greenhouse pases. The climate change induced impacts include unseasonal intense storms, frequent drought, nerse heat waves, rising sea levels, rise in sea surface temperatures and resultant ocean includion. These induce loss of habitat and biodiversity and make the communities more vulnerable of the dangerous weather events.

Realizing the real threat and need to mitigate the issue, the United Nations through the UNFCCC initiated negotiations between countries to strengthen the global response to climate change and in 1997 made the countries especially the developed nations agree a protocol on reducing emission targets for a period from 2008 to 2012. Later in December 2015, the Paris Agreement adopted by 196 countries devised strategies to limit global warming closer to pre-industrial levels.

Despite these global efforts, the goal to reduce emissions and to improve health of acosystems can only be achieved if the general public realize and participate in the process. Basic inderstanding, responsible behaviour and conscious efforts in our personal habits and life styles can be the best way forward. It cannot be expected from any Government but from public involvement -only such communities have succeeded in such efforts. The pandemic CoVID-19 has taught us essons on how the ecosystem has the resilience to bounce back upon reduced emissions of premiouse gases and therefore, it is not too late to get our acts together.

As a part of our commitment towards achieving a healthy environment, the faculty of St. phatus College, Palayamkottal made an attempt to compile and collate research findings and ideas in climate change from academicians and researchers and bring out this publication which has to be auded as it is another effort towards understanding the real threat and educate the educated to make mends.

Best wishes!

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(G. SUGUMAR)

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Climate Change: Issues, Challenges & Control Measures CLIMATE CHANGE DRIVEN BY COVID 19 AND HUMAN BEHAVIOUR

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Introduction

One third of the earth is covered by the ocean. Ocean is the mother house of the earth. Climate change is a larger environmental problem. Global warming and climate change are caused by green house gases like CH4,N2O,CO2 andO3. Over half of Antarctica badass Adelie penguins could get wiped out by climate change. Climate is the average of weather over time and space. The consequences on marine environment are ocean warming, ocean acidification, due to salinity fluctuation, extreme events and deoxygenation. Since the industrial revolution, human activities have rapidly increased the amount of carbon dioxide in the atmosphere.

GHGs and air pollution due to the COVID-19 global restrictions during the period February-June 2020 and project these into the future. These emission changes are then used to

4. P. Gurulakshmi - Potential Mitigation Strategies of Climate Change

Climate Change: Issues, Challenges & Control Measures

ISBN 978 81 947114.9 POTENTIAL MITIGATION STRATEGIES OF CLIMATE CHANGE

P. Gurulakshmi

Assistant Professor Department of Chemistry, A.P.C. Mahalaxmi College for Woman. Thoothukudi.

Dr. Jessica Fernando

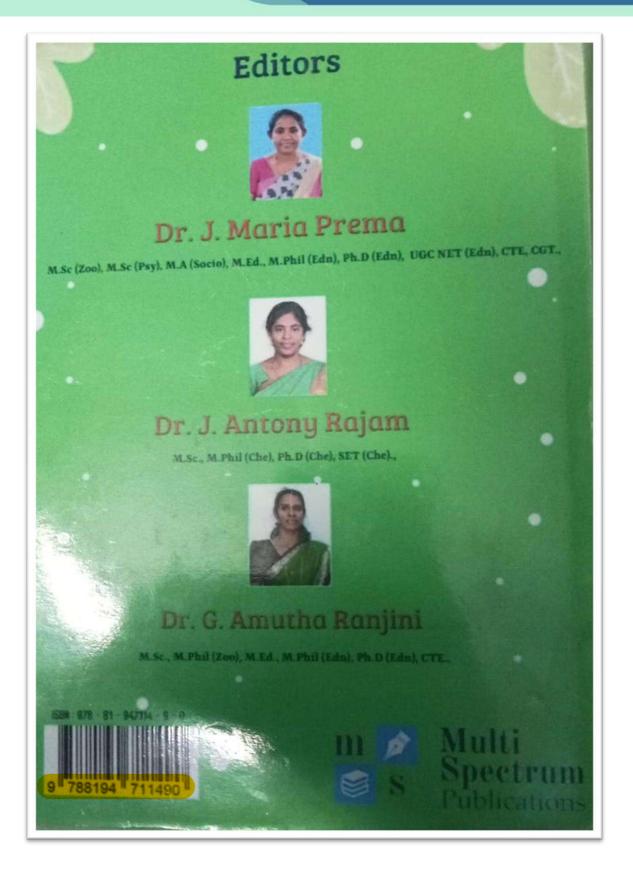
Assistant Professor of Chemistry, PG and Research Department of Chemistry, V.O.Chidambaram College. Thoothukudi.

Introduction

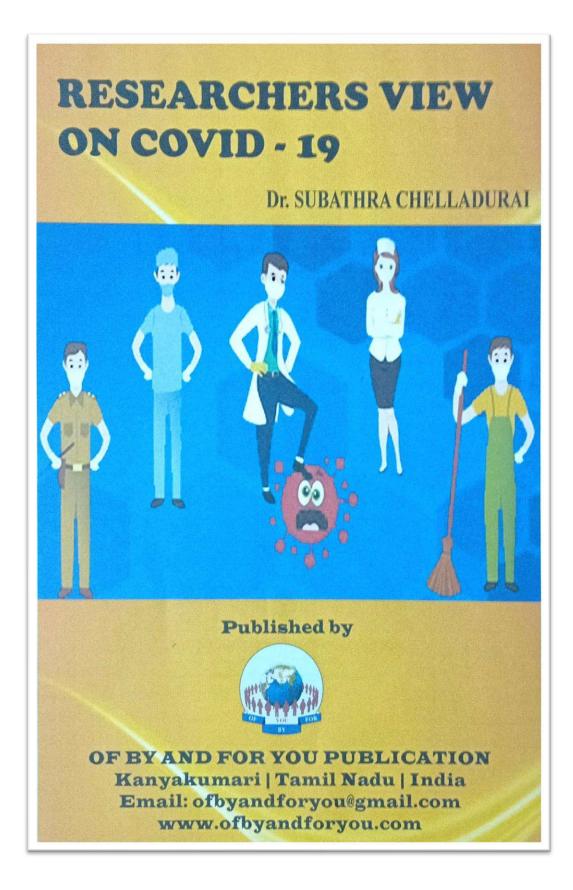
Climate Change is the defining issue of our time and we are at a defining moment. From shifting weather pattern that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale. Without drastic action today, adapting to these impacts in the future will be more difficult and costly. Human activity has caused climate change is not disputed by any scientific body of national of international standing. he largest driver has been the emission of greenhouse gases, of which more than 90% are carbon dioxide (CO₂) and methane. Temperature rise is accelerated of tempered by climate feedbacks, such as loss of sunlight reflecting snow and ice cover, increased water vapour (a greenhouse gas itself), and changes to land and ocean carbon sinks. In this way, humanity is -committed to some level of

SSR/Criterion 3

Research, Innovations and Extension / 3.3.2



5. Dr. V. Jeyanthi kumari - Researchers view on COVID 19



RESEARCHERS VIEW ON COVID - 19 EDITOR - IN - CHIEF Dr. SUBATHRA CHELLADURAI M.Com., M.Phil., PGDHRM, M.A (Soc.), M.Sc (Psy.), UGC-NET, Ph.D. Assistant Professor of Commerce & Research Supervisor Pioneer Kumaraswamy College, Nagercoil-3. Affiliated to Manonmaniam Sundaranar University, Abishegapatti, Tirunelveli, Tamilnadu, India. Email: drcsubathra@gmail.com Mob: 95852 12775 Published by OF BY AND FOR YOU PUBLICATION Kanyakumari | Tamil Nadu | India Email: ofbyandforyou@gmail.com https//:www.ofbyandforyou.com

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E-BOOK

COVID 19-A Miniseries

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OF BY AND FOR YOU PUBLICATION

COVID 19 – A MINISERIES

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INTRODUCTION

The first human cases of COVID-19 were identified in Wuhan City, China in December 2019. At this stage, it is not possible to determine precisely how humans in China were initially infected with SARS-CoV-2

However, SARS-CoV, the virus which caused the SARS outbreak in 2003, jumped from an animal reservoir (civet cats, a farmed wild animal) to humans and then spread between humans. In a similar way, it is thought that SARS-CoV-2 jumped the species barrier and initially infected humans, but more likely through an intermediate host, that is another animal species more likely to be handled by humans - this could be a domestic animal, a wild animal, or a domesticated wild animal and, as of yet, has not been identified. Until the source of this virus is identified and controlled, there is a risk of reintroduction of the virus in the human population and the risk of new outbreaks like the ones we are currently experiencing.

Corona and COVID-19

Corona viruses are a large family of viruses which may cause illness in animals or humans. In humans, several corona viruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The most recently discovered corona virus causes corona virus disease COVID-19. COVID-19 is the infectious disease caused by the most recently discovered corona virus. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019

SYMPTOMS & ASYMPTOMATIC PERSON

The most common symptoms of COVID-19 are fever, tiredness, and dry cough. Some patients may have aches and pains, nasal congestion, runny nose, sore throat or diarrhea. These symptoms are usually mild and begin gradually severe. Some people become infected but don't develop any symptoms and don't feel unwell. Most people (about 80%) recover from the disease without needing special treatment. Around 1 out of every 6 people who gets COVID-19 becomes seriously ill and develops difficulty in breathing. Older people, and those with underlying medical problems like high blood pressure, heart problems or diabetes, are more likely to develop serious illness. People with fever, cough and difficulty breathing should seek medical attention. The main way the disease spreads is through respiratory droplets expelled by someone who is coughing. The risk of catching COVID-19 from someone with no symptoms at all is very low. However, many people with COVID-19 experience only mild symptoms. This is particularly true at the early stages of the disease. It is therefore possible to catch COVID-19 from someone who has, for example, just a mild cough and does not feel ill.

While some western, traditional or home remedies may provide comfort and alleviate symptoms of COVID-19, there is no evidence that current medicine can prevent or cure the disease. WHO does not recommend self-medication with any medicines, including antibiotics, as a prevention or cure for COVID-19. However, there are several ongoing clinical trials that include both western and traditional medicines.

CONCLUSION

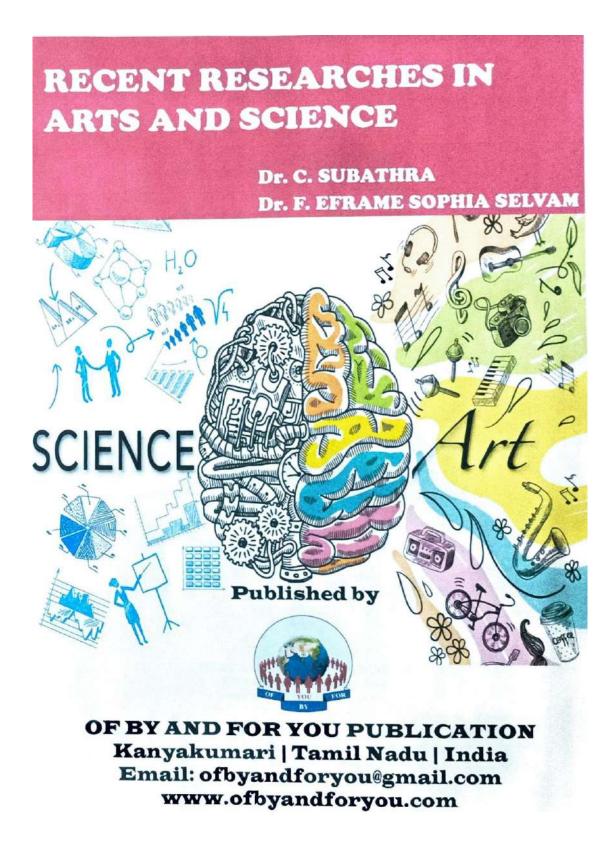
While we are still learning about how COVID-2019 affects people, older persons and persons with pre-existing medical conditions (such as high blood pressure, heart disease, lung disease, cancer or diabetes) appear to develop serious illness more often than others.

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6. Dr. V. Jeyanthi kumari - Recent Researches in Arts and Science



RECENT RESEARCHES IN ARTS AND SCIENCE

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Biodigested Poultry Droppings and Cow Dung as Substratum for Blue Green Algae - A Dietary Supplement

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 BIODIGESTED POULTRY DROPPINGS AND COW DUNG AS SUBSTRATUM FOR BLUE GREEN ALGAE - A DIETARY SUPPLEMENT
 •Dr.V.JEYANTIII KUMARI

 Assistant professor of Zoology,
 A.P.C.Mahalaxmi College for Women, Thoothukudi Afflitated to Manomaniam Sundaranar University, Abishegapatti, Tirunelveli– 627 012, Tamilnadu , India

 BASTRACE
 In many countries, Spirulina used as human food as an important source of protein

and is collected from natural water, dried and eaten. It has gained considerable popularity in the human health food industry and in many countries of Asia because of its macro- and micronutrient contents. It is used as protein supplement and as human health food. It could be easily cultivated by providing water, could be harvested and processed comfortably. It has been used as a complementary dietary supplement of feed for poultry and increasingly as a protein and vitamin supplement to aqua feeds. The present study emphasizes the easy and effortlessly cultivation of Spirulina by using different substrates like biodigested poultry droppings and spent cow dung slurry obtained from biogas plant. The chlorophyll and protein contents were evaluated. The biogas spent slurries enhanced Spirulina growth in notable manner and maximum chlorophyll and protein content were observed in biodigested poultry droppings substrates followed by spent cow dung slurry. The experimental results revealed the efficacy of the two substrates as culture medium which reduces the valuable cost and make them a cheaper to cultivate.

Keywords: Spirulina, biodigested slurry, protein content

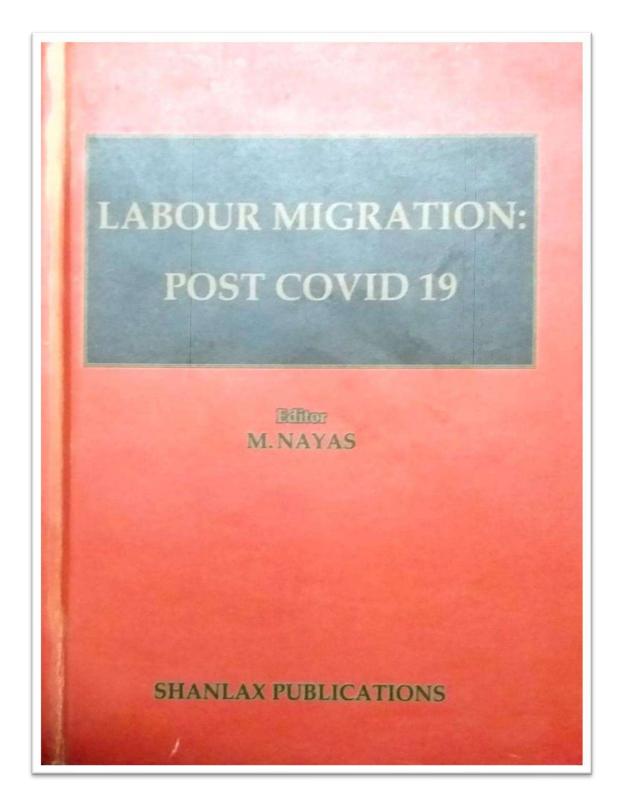
INTRODUCTION

Spirulina are multicellular and filamentous blue-green algae that has gained considerable popularity in the health food industry and increasingly as a protein and vitamin supplement to aquaculture diets (Tomaselli *et al.*, 1996). The greatest single problem in the world today is Global food protein shortage. The protein need for the world cannot be replaced by the agricultural field alone. Hence, there is an urgent need to find other protein sources because it is an essential component of diet. In present situation the microbial protein or single cell protein (SCP), are considered to be a new source of protein independent of agriculture and tillage industries. The microorganisms such as bacteria, fungi, yeasts and algae are grown in large scale, harvested and processed. These dried cells are used as proteins

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Labour Migration: Post Covid 19

LABOUR WELFARE: POST COVID 19

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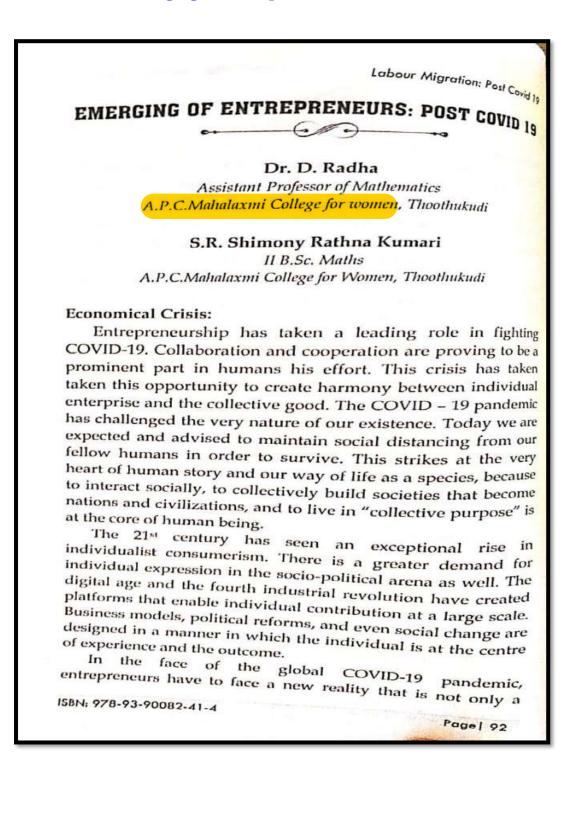
The COVID-19 pandemic has pushed the country under an extended lockdown creating a cascading effect on economic growth but the labour migration caused by it is posing serious challenges for the power and renewable energy industries. Deployment of labour will be a huge challenge given the restrictions on intra and interstate public transportation plays supportive roles. The exodus of migrant labourers from major metro cities has given rise to a shortage of non-technical workers working in the energy industry and even if the government opts for a staggered lifting of the lockdown, the process of remobilization would pose challenges for companies. For under-construction solar projects, technical requirements are high at an advanced stage hence, labour intensity is lower. In case of operational projects, both technical and local manpower is required and as most of the utility scale projects are in hinterlands where local labour is used so mobility issues will not impact much, while it is difficult to predict the overall impact of labour migration on renewable energy jobs, looking at the current situation, job creation would continue to happen in the renewable sector. Some of the key parts of the supply chain will be affected and it might take two to three months for it to stabilize after lockdown.

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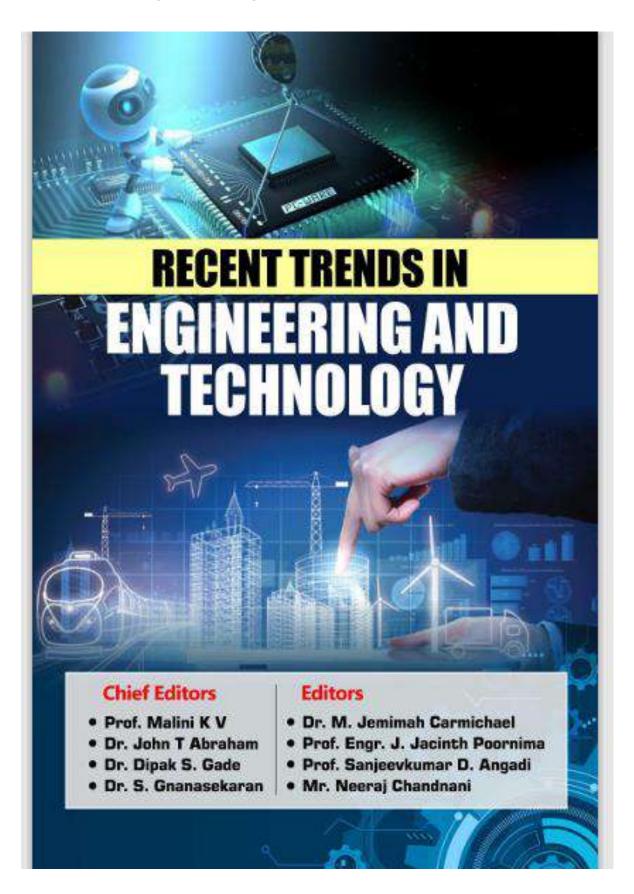
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9. Dr. S.V. Vani & K. Bala Deepa Arasi - Feebly Generalized Continuous and Irresolute Mapping in Bitopological Spaces



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SSR/Criterion 3

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Feebly Generalized Continuous and Irresolute Mapping in Bitopological Spaces

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ABSTRACT

In this article we introduce the notion of Feebly generalized continuous maps and irresolute maps in bitopological spaces by using the concept of Feebly Generalized closed sets¹ in bitopological spaces and some properties concerning these concepts are discussed.

Keywords: T1T2 -FG-continuous mappings, T1T2 -FG-irresolute mappings.

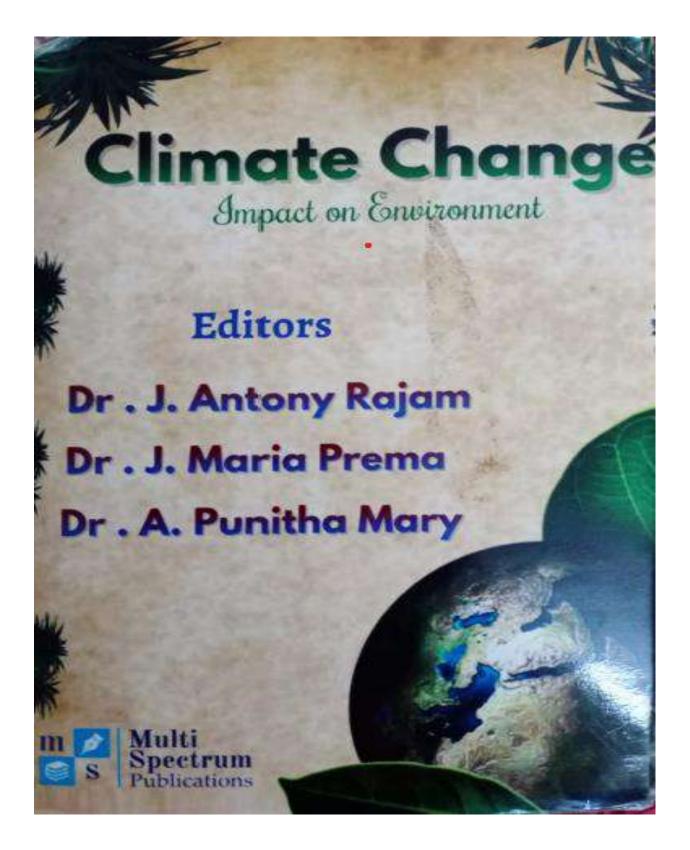
2010 AMS Subject classification code: 54C55, 54E55

Introduction

A triple (X, τ_1, τ_2) consisting of a non-empty set together with a pair of Topologies

 $\tau_1\,\&\,\tau_2\,{\rm on}\,\,X$, is defined to be a bitopological space by J.C.Kelly^8 as introduced

"Bitopological spaces" and published in proceeding of London Mathematical Society, 1963. Such a space, equipped with two arbitrary topologies, is beyond any doubt an original and fundamental work. In 1986, T. Fukutake⁵ projected the concept of *g*-closed sets for bitopological spaces through the mathematical paper "On Generalized closed sets In Bitopological spaces". In 2014, K.Chandrasekhara Rao and Kannan⁷ introduced the concept of semi star generalized closed sets in bitopological spaces respectively. Maheshwari S.N. and Jain P.C.⁹ introduced and studied feebly open sets in topological spaces. In 1967, the concept of continuity Dr. S. Kalaiarasi - Impact of Climate Change on Pesticide Usage



Climate Change

Impact on Environment

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