

AcSIR Student Seminar at CSIR-NISTADS

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**National Institute of Science, Technology and Development Studies (NISTADS)
Academy of Scientific and Innovative Research (AcSIR)**

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Acknowledgement

The seminar series was initiated by the AcSIR PhD students with support from Prof. Ranjana Aggarwal and Prof. Mohd. Rais at NISTADS. This weekly event has PhD students at NISTADS, give short presentations based on their PhD research work.

The support from institute administration, Scientific Staff and AcSIR faculty members has allowed the event series to continue.

1. Introduction

The AcSIR PhD Programme at CSIR-NISTADS, New Delhi is more than 5 years old. The PhD students at the institute work on topics related to various disciplines and cover a vast repertoire of issues in science, technology and innovation studies. This seminar series is being conducted at the institute by collaborative effort of AcSIR Faculty, Institute Administration and PhD Students. It is our hope that the series will gather support from the institute and help the students improve their research work.

2. Purpose

This seminar series aims to bring the PhD students together on a shared platform. The interaction between them and the AcSIR faculty at NISTADS will be beneficial for the students. In addition, this will help create a collaborative academic environment among the students as well.

3. About the Series

In this series, a seminar will be held once every week where a PhD student will make about 20 minute long presentation to the audience. This presentation will be related to the work conducted by the student during their PhD research. The student is expected to present a brief overview of their work and/or choose a specific topic from their work to talk.

Keeping the presentation short is strategically decided to promote longer follow-up discussions between the presenter and the audience.

4. Schedule

The Proposed Start of Seminar Series is on Wednesday, January 29, 2020. The Seminar will be held in NISTADS Vivekananda Conference Hall from 3:00 PM. The seminars in this series will be conducted once every week on either Tuesday, Wednesday or Thursday.

5. List of AcSIR PhD Students participating in Seminar Series

S. No.	Name	Year of Joining	Title of Thesis
1	Priyamvadah Kinth	2014	Assessing the need and impact of Nutraceuticals as dietary supplements
2	Anurag Kanaujia	2015	Innovation, Regulation and Governance: Study of GM crops in India
3	Umang Gupta	2015	Role of Enabling Institutions in Creation of Ecosystem for Technology Startups
4	Priti	2015	Resource Potential of Biodegradable Waste: Quantification and Pathways (A case study of Fruit and Vegetable waste)
5	Sadhna Sahu	2015	Sustainability Transition in Marine Capture Fisheries: A Case Study of Kerala
6	Dhruv Mishra	2015	Identifying Barriers in Innovation Strategies of Neglected Tropical Diseases: The Case of Chikungunya in India
7	Raj kishor Kustwar	2016	Impact of Telemedicine Intervention on Healthcare Delivery in India
8	Chandrashekhar Chavan	2016	A Study of Stem Cell Research and Therapy in India
9	Prajith K K	2018	A Study on Invasive Insect Pest of Agriculture in South India: Innovation and Policy Imperatives
10	Megha Vaishnavi	2018	Scope of Algal Biofuels on Renewable Energy
11	Ishita Goyal	2018	Emerging Trends in 'Personalized Medicine': Implications for India

6. Schedule of Seminars

The seminars were conducted from January 29 onwards, with an average participation of 25 individuals. The audience consisted of AcSIR Faculty members/ Scientists, PhD Students, Scientific Staff and Internship students.

i. Priyamvadah Kinth

Title: Assessing the need and impact of Nutraceuticals as dietary supplements

Date and Time: January 29, 2020 from 3.00pm-3.30pm

Abstract of the talk

Focus of the talk would be on assessing the need of nutraceuticals as dietary supplement. Trends emerging from the primary survey related to user's perception about the claimed health benefits of nutraceuticals/health supplements would be presented. This is important in the light of rising market and growing public interest in these non-prescription based products. Questionnaire survey method was used to understand the prevalent understanding among consumers, the consumption pattern, reasons for consumption or non-consumption of these products and overview of regulations pertaining to nutraceuticals.



ii. Anurag Kanaujia

Title: Developing a Conceptual Framework for Evaluating the Case of Genetically Modified (GM) Crops in India

Date and Time: February 05, 2020 from 3.00pm-3.30pm

Abstract of the talk

New and Emerging technologies like GM crops have multi-dimensional issues that involve a complex technology-society-market interface. This complexity leads to different perspectives of technology and its impact.

Adoption and commercialisation are not simply market driven but involve issues of risk, ethics, ownership, societal acceptance etc. Understanding these different facets leads to designing of appropriate regulatory and governance framework.

Conceptual framework provides a structure based on interlinked concepts to study a phenomenon. The presentation draws attention to developing a conceptual framework for GM crops. This framework the author applied for examining the innovation, regulation and commercialisation of GM crops in India.



iii. Sadhna Sahu

Title: Evaluation of Sustainability Status for State Marine Fisheries of India

Date and Time: February 13, 2020 from 3:00 PM-3:30 PM

Abstract of the talk

Marine fisheries are developed to various extents in different coastal states of India. Optimal utilization of marine living resources has not been achieved in any of the states with most regions being either underexploited or heavily overexploited.

Understanding the current status of sustainability is important for path correction towards a more sustainable system. As part of my research I have attempted to quantify the indicators for each of the attributes of sustainability (Ecological, Technological, Economic, Social, Ethical and Institutional) for all the coastal states of India by using a method called as RAPFISH (Rapid appraisal of fisheries).



iv. Umang Gupta

Title: Enabling Institutions for creation of an Ecosystem for Technology Startups: A Case Study of Nutriorg, Jaipur

Date and Time: February 20, 2020 from 3:00 PM - 3:30 PM

Abstract of the talk

Entrepreneurship has become the driving force of economic and social development throughout the world. In recent decades, research has produced new insights that have changed the prevalent view about the role of entrepreneurship in innovation and technological change.

In this context, it is imperative to look at the context of how institutions can align themselves with the system and create enabling environment for innovation and entrepreneurship which requires a robust framework to study.

The presentation is based on a case study performed by the author in the course of studying the entrepreneurship ecosystem in various regions in India. Applying a framework based on the concepts from innovation systems and entrepreneurship studies, the case has been analyzed to study the development of the said ecosystem in the region.



v. Priti

Title: Resource Potential of Biodegradable Waste: Quantification & Pathways
(A case study of fruit & vegetable waste)

Date and Time: February 27, 2020 from 3:00 PM-3:25 PM

Abstract of the talk

The rise in the urban settlement is happening haphazardly and continuous reliance on the landfilling technology for waste management has serious consequences for the future; one of such foreseen consequences is shrinking land resources. Moreover, 90% of the landfills are just open dump and the indiscriminate disposal of mixed waste in landfill without scientific treatment poses serious environmental and social threat. Therefore, there is a need of a hierarchical approach of waste management for sustainable resource recovery, which is primarily based on the waste composition and characteristics.

Most of the countries underwent reforms in waste management practices by following the hierarchical approach and keeping organic waste out of landfill. On the contrary, in India approximately 40-50% percent of the solid waste is organic, making the segregation of the organic portion unrecoverable. The presence of the high percentage of unsegregated organic waste reduce the efficiency of waste processing technology.

In this context, a study of fruit & vegetable waste which contributes large fraction of biodegradable waste in municipal solid waste (MSW), is presented. This study focuses on the improper waste management practices in Agriculture Produce Market Committee (APMC) and Municipal Bajar Samiti. The study determines the gap and establishes a relationship between environment and sustainability practice to utilize waste as resource.



vi. Dhruv

Title: Resource Potential of Biodegradable Waste: Quantification & Pathways
(A case study of fruit & vegetable waste)

Date and Time: March 5, 2020 from 3:00 PM-3:25 PM

Abstract of the talk

WHO has defined Neglected tropical diseases (NTDs) as a group of communicable diseases that are prevalent in tropical and subtropical regions across 149 countries. The term 'Neglected' in NTDs can refer to neglect in terms of research initiatives or efforts taken in prevention, mitigation and cure of the disease. This presentation compares the global R&D scenario of neglected diseases with that of India by studying the case of Chikungunya in India. I will discuss the results of my scientometric analysis which aims to study and analyse the current R&D status of chikungunya a tropical neglected disease prevalent in India and to compare it with R&D in HIV which is a global disease. Analysis of the results show that Chikungunya remains a neglected disease in terms of R&D efforts in India and in the western countries. I will also discuss the successful innovation models emerging in other countries and compare it to the current R&D scenario in India.



vii. Raj Kishor Kustwar

Title: Effect of Telemedicine Intervention on Healthcare Delivery in India

Date and Time: March 12, 2020 at 03:00 pm

Abstract of the talk

There exists a huge inequality in healthcare distribution in India- 75% of qualified doctors are practicing in urban areas, 23% in semi-urban areas and only 2% in rural areas where 68.8% population live and patients from these areas have to travel 50-70 km to seek specialty treatment. India spends around 4.1% of GDP on health, of which government contribution is only about 1.15%. Out of pocket expenses are high at over 60%, much higher than most of the countries in the world.



In terms of mortality, deaths due to communicable, maternal, perinatal and nutritional conditions account for 28%, injuries 12% and Non-Communicable Deaths (NCDs) account for 60%, where NCDs accounted for about 45% of rural deaths. Telemedicine in India is started in 2000 to bridge the rural-urban healthcare divide. Telemedicine allows health care professionals to evaluate, diagnose and treat patients at a distance using telecommunications technology. Although telemedicine has benefitted a large population especially from underserved remote and rural areas through ISRO Telemedicine Network, NRTN, NTN, NMCN, SEHAT, OncoNet, CSC-SP and various state government telemedicine networks. However, majority of telemedicine projects are either stalled or are in early developmental stage. So far a little research exists on readiness, availability, accessibility, user-acceptance and functionality of telemedicine in India. Therefore, present study focused on the challenges of telemedicine and functionality of telemedicine centers in the current Indian scenario. Semi-structured questionnaire based survey of stakeholders was conducted to know their opinion on potential challenges to telemedicine and their possible solutions. According to the respondents telemedicine is underutilized in India and its unavailability could have moderate to severe effect on healthcare delivery in underserved areas. In terms of functionality, telemedicine centers were being utilized for continuing medical education, but only in terms of number of teleconsultations was adequate. Identified potential challenges to telemedicine include- connectivity, communication, reluctance of doctors to use telemedicine and ethical, medical and regulatory issues. Attention of policy makers, healthcare providers and administrators is needed towards increased integration of telemedicine with conventional healthcare system.

education, but, utility in terms of number of teleconsultations was inadequate. Identified potential challenges to telemedicine include- unavailability, unawareness, reluctance of doctors to use telemedicine and ethical, medico legal and regulatory issues. Attention of policy makers, healthcare providers and administrators is needed towards sustained integration of telemedicine with conventional healthcare system.

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Covid 19 Social Distancing Guidelines came in effect and subsequent presentations have not been conducted since then



1AcSIR PhD Students at CSIR-NISTADS, New Delhi during Institutional outreach program Jigyasa 2019