



MANAV RACHNA INTERNATIONAL INSTITUTE OF RESEARCH AND STUDIES

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Dr Lakhvinder Kaur

Designation: Associate Professor

Qualifications: Ph.D (Food Science)

Email: Lakhvinder.fahs@mriu.edu.in

Experience: 20 years



Research Interest: Food Science and Technology, Sports Science and Nutrition, Waste Valorisation

Journal Publication Details:

- **Research Paper in Journal of Food Engineering.** –Effect of sprouting conditions on functional and dynamic Rheological properties of wheat. [47, 1](#), 2001, 23–29.
- **Research Note in Journal of Food Science and Technology, Mysore** -Effect of mustard oil and process variables extrusion behavior of rice grits. 37, 2000, 656 – 660.
- **Abstract in Journal of Applied Health Sciences** – An enzyme based Therapeutic whey drink for the recovery of DOMS and micro – injuries in sports person and its evaluation for proteolytic activity. Vol-.2, October 2015.
- **Research Paper in International Research Journal of Engineering and Technology (IRJET)** – Effect of aloe vera and wheat grass juice as an edible coating to prolong the shelf life of bananas. Volume 3 Issue 6, June 2016.
- **Research Paper in International Journal of Applied and Pure Science and Agriculture** – Shelf Life Improvement In Apples Using Triticum Aestivum L. And Aloe Barbadensis Juice as An Edible Coating. Volume 02, Issue 06.
- **Research Paper in World Journal of Pharmaceutical and Life Sciences** - Development of vitamin d rich product prepared from mushroom powder. 2016, Vol. 2, Issue 3, 253-260.
- **Research Paper in World Journal of Pharmaceutical and Life Sciences** - Development of low sugar green tea kiwi jam from green tea extract and kiwi pulp. 2016, Vol. 2, Issue 3, 253-260.
- **Research Paper in Paripex - Indian Journal of research** - Development of A Product Rich in Vitamin D Prepared From Mushroom Powder. Volume: 5 | Issue : 5,2016.
- **Research Paper in Indian Journal of Nutrition** - Development of Antioxidant Rich, Low Sugar Jam From Green Tea Extract and Kiwi Pulp. Volume 3, Issue 1 – 2016.
- **Research Paper in International Journal of Research and Applied Sciences** - BULK AND NANO-ZINC OXIDE PARTICLES AFFECTING in Engineering PHYSIO-MORPHOLOGICAL PROPERTIES OF PISUM SATIVUM , Vol. 7 Issue 2, February-2017, pp. 17~28 ISSN (O): 2249-3905, ISSN(P): 2349-6525 | Impact Factor: 6.573 .
- **Research Paper in International Journal of Research in Engineering and Applied Sciences** -Green Tea Based Edible Bio Packaging Film: Development Of Edible Packaging Film And Its Evaluation Vol. 7 Issue 5, May 2017, pp. 353~358 ISSN(o): 2249-7382 | Impact Factor:6.939 | Thomson Reuters Researcher ID: L-5236-2015.
- **Research Paper in International Research Journal of Engineering and Technology (IRJET)** e-ISSN: 2395-0056,Volume: 05 Issue: 06 | June-2018 ISSN: 2395-0072, Page 1600- 1602 – “Catharanthus Roseus (Sadabahar) Leaf Chocolate”.
- **Research Paper in International Research Journal of Engineering and Technology (IRJET)** e-ISSN: 2395-0056,Volume: 05 Issue: 06 | June-2018 ISSN: 2395-0072,Page 3237-3240 - Influence of height and weight on physical fitness index of amateur gymers of age 17 years.
- **Research Paper in Global Journal For Research Analysis** Volume-7, Issue-6, June-2018 • Issn No 2277 – 8160 - Identification Of Waste Utilizing Bacteria From Fruit Waste.

Conference details:

- Energy and Environment foundation & Ministry of Health and Family Welfare Gov. "The World Healthcare Conference 2021 (WHC 21)", 15-16th April 2021.
- Nutrition Meet on "Modifying Diet For Special Physiological Conditions in Oncology" by Signura and IAPEN, 27/6/20.
- School of Studies in Physical Education and Sports Sciences of **Jiwaji University, Gwalior** "National Conference on Fitness, Health and Sports Sciences from 16th - 17th March 2019.
- Indian Science Congress January 2019 at LPU Jalandhar, Punjab.
- International Conference on "Environmental and Ecological Sustainability: Engaging the Stakeholders, Oct 2018. IGNOU.
- 2nd International Conference on "Innovative Approaches in Applied Sciences and Technologies" at Nanyang Technological University, Singapore, 19-23 June 2017 as a "**Lead Speaker**".
- Indo Japanese Conclave III, Feb 2017 at MRIU, Faridabad, Haryana.
- 2nd National Symposium on Emerging Trends in Biological Sciences - 2016", 12th November, 2016 at M.M. Modi College, Patiala.
- National Conference on Advances in Food Science and Technology, Rajguru College of Applied Sciences, New Delhi .2016.
- National seminar On Hazards to adolescent Physical and Psychological well being India, Faridabad, 2016.
- 7th Asia-Pacific Conference on Exercise and Sports Science, India 2015, MRIU, Faridabad, Haryana.
- 9th Asian Congress Held in Delhi.
- World Food Day organized by Bhaskaracharya College. Delhi.
- Seminar organized by Kitchen Garden Association. Lady Irwin College, New Delhi.

Boo/Chapter Publications: NA**Administrative Responsibilities:**

1. Faculty of Sports Science Program Coordinator
2. Food science and Technology Coordinator
3. Food Science and Technology Admission Coordinator
4. Member of Mentored Internship Program

Professional Affiliation:

- Life member of Association of Food Scientists and Technologists.
 - Life Time member of SERS, Meerut.
 - Life Time member of Astha Foundation, Meerut.
- Executive member of AFSTI(Delhi Chapter)
- Member of Innovation Council (IIC) IGNOU, Oct 2018.
 - **Advisor (Technical)**, Research Institute of Material Sciences, Dwarka, New Delhi.
 - **Core Panel member** Laboratory Setup. School of Agriculture. IGNOU.

Expert Talk Delivered:

- 1. Topic : “How food choices impact our health and consequently productivity”** .Webinar organized by National Productivity council and IGSSS on 4/3/2021.
- 2. Topic : “Popular Fad diets in sports”** ,Lecture series organized by Sports Authority of India on 23/9/2020.
- 3. Topic : “Nutrition for Swimmers “, Webinar organized by Thetis Aquatics ,Noida on 3/9/2020.**
- 4. Topic : “Nutrition for young wrestlers and elite wrestlers.”** Lecture series organized by Khelo India , Sports Authority of India and Wrestling Federation on 4/6/20 , 6/6/20 , 15/6/20.
- 5.Topic : ““NUTRITION IMPORTANCE DURING LOCKDOWN”** Sports Authority of India 14/4/20
6. School of Studies in Physical Education and Sports Sciences of **Jiwaji University, Gwalior** “National Conference on Fitness, Health and Sports Sciences from 16th - 17th March 2019.
- 7. 2nd International Conference on “Innovative Approaches in Applied Sciences and Technologies”** at Nanyang Technological University, Singapore, 19-23 June 2017 as a **“ Lead Speaker”** .

Event Organized (Conference/Seminar/FDP/Workshops) :

- 1.One day event : “World Food Day 16th October 2019 “** in association with PHD chamber of commerce and AFSTI (Delhi Chapter).Event Coordinator.
- 2. 5 Day FDP on “Integrative Approach towards Current Practices in Food Product Development”** 29th April – 4th May 2021.

Awards:

- AICTE Chhatra Vishwakarma Regional Award for “Floritech” in Jan 2021.
- 1stAICTE Chhatra Vishwakarma Regional Award for “Agroware” in "Waste Management" Category, Jan 2020.
- 1stPrize for “Agroware” at MoFPI, IIFPT National Conference and Exhibition, Sepember 2019.
- First prize at SRIJAN 2019, Science Exhibition at MRIIRS for “Development of value added products from temple floral waste.”
- 2nd prize at North Regional ANVESHYA competition held at NIFTEM, January 2019 for Startup “Naturoplast”.
- 2ndAICTE-ECI-ISTE Chhatra Vishwakarma National Award for “Naturoplast ” Startup in "Other Rural Category, Jan 2019.
- Special award at IEYI international Conference held at MRIIRS Faridabad, for Startup Naturoplast, Oct 18.
- **SERS “Women Scientist Award 2017” at Nanyang Technological University, Singapore.**

PATENTS FILED

- **Nano wraps:** The nanowraps was filed for Indian Patent Rights on 25 May 2018 at 12:05:05. Application number: 201811019441.
- **Intelligent Packaging:** The Intelligent Packaging was filed for Indian Patent Rights on 25 May 2018 at 12:05:05. Application number: 201811019442.

Innovative Startup

NATUROPLAST – Biodegradable Packaging Material : India is growing not just in terms of innovations, technology, and better facilities but also the problems associated with them. In this day of growth and advancement, plastic pollution is becoming havoc to the environment. Its sheer convenience has made this material ubiquitous in every sphere. Annual plastic consumption is expected to increase from 12 million tonnes to 20 million tonnes by 2020. But the challenge with the plastics is their non-biodegradable nature. Most of the plastic packaging's end up lying in the landfills, dump yards or simply remain collected on roadsides. This has even affected the ocean ecosystems and is the root cause for the dissipation of the rich marine life. The underutilization of the natural resources is another big problem. The production of the bananas is quite high and India ranks first among other countries in the production. Even after its usage and the export, lots of bananas are left unused. So, to reduce and curb the problem, the best possible way is the value addition. **“Nanoplast” is one such biodegradable packaging** made from green banana. It is an innovative bioplastic wrap with improved physical and mechanical properties. Being cost effective, biodegradable, water soluble and high in mechanical strength “Nanoplast” possesses a high impact both socially and environmentally. It's an ecofriendly package and a Green Initiative to build a Swacch Bharat. The Nanowraps can be used as a primary packaging material for packing raw as well as processed food items. It not just helps in overcoming plastic packaging disposal but also aids in the effective usage of the green bananas. Therefore, aids in curbing food annihilation.