SHAFAT KHAN

SUMMARY

Passionate Assistant Professor with Eight years of experience in the field of Food Process engineering designing technology driven solutions for industry as well as post harvest operations. Organized and driven with impressive list externally funded grants and research publications. Specialized to create skill based job curriculum for training and development in food industry.

EXPERIENCE

Assistant Professor, 08/2023 - Current Rajasthan University of Veterinary and Animal Sciences Rajasthan -Jaipur

• Works as Incharge Head , Department of Food Plant Operations and Assistant Professor in a state Government university in India.

Deputy Manager, 01/2023 - 08/2023 FICSI New Delhi

Curriculum Design and Development for Food Safety and Industry based Job roles at Sector Skill Council for Food Processing, under Ministry of Skill Development and Entrepreneurship , Govt. of India

Assistant Professor, 01/2018 - 12/2022

Islamic University of Sciences and Technology Kashmir - Kashmir, India

• Research , Development and Teaching

Assistant Manager, 03/2017 - 12/2017 Paras Spices private limited - Moga, India

• Managed equipments expansions and operations.

Senior Research Fellow ICAR CIPHET Abohar

- Senior Research Fellow at Horticulture Crop Processing at ICAR CIPHET Abohar
- From 21-09-16 to 20-03-17

EDUCATION AND TRAINING

PhD, **Food Process Engineering**, **05/2024 National Institute of Technology** - Rourkela GPA: 8.88/10



CONTACT

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SKILLS

- Food Safety
- Solar Drying
- Numerical Modelling and Simulation
- Skill Development in Food Processing
- Essential Oils
- Spices Processing/
- Computational Fluid Dynamics

Sponsored PhD program under Technical Education Quality Improvement program (TEQIP III) funded by world Bank

M.Tech, Food Process Engineering, 08/2016 Indian Institute of Technology - Kharagpur

Qualified Graduate Aptitude Test in Engineering (GATE 2024) with All India Rank 50

Received Teaching Assistantship from Ministry of Education Government of India

B.Tech, Agricultural Engineering, 08/2014

SKUAST - Kashmir

DISTINCTIONS

- Received Innovation in Food Engineering Award at International conference KETSAC-2022 at NIT Rourkela
- Received Best Oral Presentation award at 28th Indian Convention of Food Scientists and Technologists India 2021 organized by AFSTI at CSIR -CFTRI Campus Mysuru India on Performance evaluation of Infrared assisted hybrid Greenhouse solar for Pear slices
- Received Best Oral Presentation award at 5th AMIFoST on International Conference on Food Sustainability 2022 at Amity University Uttar Pradesh on Recent advances in hybrid greenhouse solar drying technologies in Kashmir
- Awarded Teaching Assistantship by MHRD to pursue M.Tech at IIT Kharagpur
- Stood 1st In ALL INDIA TEQIP III RECRUITMENT 2017 for Food Processing and Technology (MHRD- WORLD BANK Project for Quality Improvement in AICTE approved Institutions)
- Selected for PhD at University of Nottingham and awarded a scholarship of £ 41,000 for three years
- Best Feedback from students among TEQIP Faculty for the year 2018 in the university

RESEARCH ACCOMPLISHMENTS

01, Khan, S. A., Aslam, R., & Makroo, H. A. (2019). High pressure extraction and its application in the extraction of bio-active compounds: A review. Journal of Food Process Engineering, 42(1), e12896., Khan, S. A., Dar, A. H., Bhat, S. A., Fayaz, J., Makroo, H. A., & Dwivedi, M. (2020). High intensity ultrasound processing in liquid foods. Food Reviews International, 1-26., Khan, S., Das, S., Malik, N., & Bhat, S. A. (2017). Antioxidant properties of garlic essential oil and its use as a natural preservative in processed food. International Journal of Chemical Studies, 5, 813-821., Khan, S. A., Taj, F., Habib, S., Shawl, F., Dar, A. H., & Dwivedi, M. (2022). CFD Analysis of Drying of Cereal, Fruits, and Vegetables. In Advanced Computational Techniques for Heat and Mass Transfer in Food Processing (pp. 235-246). CRC Press., Rasool, S., Hussain, T., Zehra, A., Khan, S., & Khan, S. (2018). CRISPR: A New Era In Molecular Biology. Gene Therapy & Molecular Biology, 18., Rasool, S., Hussain, T., Zehra, A., Khan, S., & Khan, S. (2017). CRISPR: Genome-Editing and Beyond. Current Trends in Biotechnology & Pharmacy, 11(2)., Aga, M. B., Dar, A. H., Nayik, G. A., Panesar, P. S., Allai, F., Khan, S. A., ... & Altaf, A. (2021). Recent insights into carrageenan-based bio-nanocomposite polymers in food applications: A review. International Journal of Biological Macromolecules, 192, 197-209., Manzoor, A., Dar, A. H., Pandey, V. K., Shams, R., Khan, S., Panesar, P. S., ... & Khan, S. A. (2022). Recent insights into polysaccharide-based hydrogels and their potential applications in food sector: A review. International Journal of Biological Macromolecules, 213, 987-1006., Shabir, I., Khan, S., Dar, A. H., Dash, K. K., Shams, R., Altaf, A., ... & Pandey, V. K. (2022). Laser beam technology interventions in processing, packaging, and quality evaluation of foods. Measurement: Food, 8, 100062., Junaid, Pir Mohmmad, Aamir Hussain Dar, Kshirod Kumar Dash, Tabli Ghosh, Rafeeya Shams, Shafat Ahmad Khan, Anurag Singh, Vinay Kumar Pandey, Gulzar Ahmad Nayik, and Gurajala Venkata Siva Bhagya Raj. "Advances in seed oil extraction using ultrasound assisted technology: A comprehensive review." Journal of Food Process Engineering (2022): e14192., Shabir, I., Pandey, V. K., Dar, A. H., Pandiselvam, R., Manzoor, S., Mir, S. A., ... & Trif, M. (2022). Nutritional Profile, Phytochemical Compounds, Biological Activities, and Utilisation of Onion Peel for Food Applications: A Review. Sustainability, 14(19), 11958., Jan, B., Aga, M. B., Dar, A. H., Majid, I., Shams, R., & Khan, S. A. (2023). Principles of Ohmic heating for the food industry. In Emerging Thermal Processes in the Food Industry (pp. 229-243). Woodhead Publishing., Altaf, A., Dar, A. H., Khan, S. A., & Singh, A. (2022). Nanocomposite and Food Packaging. Nanotechnology in Intelligent Food Packaging, 1-23., Dash, K. K., Fayaz, U., Dar, A. H., Shams, R., Manzoor, S., Sundarsingh, A., ... & Khan, S. A. (2022). A comprehensive review on heat treatments and related impact on the quality and microbial safety of milk and milk-based products. Food Chemistry Advances, 100041., Allagaband, S., Dar, A. H., Patel, U., Kumar, N., Nayik, G. A., Khan, S. A., ... & Shaikh, A. M. (2022). Utilization of Fruit Seed-Based Bioactive Compounds for Formulating the Nutraceuticals and Functional Food: A Review. Frontiers in Nutrition, 9., Jan, B., Shams, R., Dar, A. H., Majid, I., & Khan, S. A. (2022). Containers for Food Packaging Application. In Micro-and Nano-containers for Smart Applications (pp. 105-125). Springer, Singapore., Taj, F., Dar, A., Dwivedi, M., Naik, H. R., Farzana, W., & Khan, S. A. (2021). Design strategies and recent advances in utilisation of solar energy for pasteurisation. MRS Energy & Sustainability, 1-15., Rizvi, Q. U. E. H., Shams, R., Dar, A. H., Majid, I., Singh, A., Khan, S., & Aga, M. B. (2021). Extraction Technology Applications in Food and Biological Products. In Food Processing (pp. 185-201). CRC Press., Fayaz, U., Dar, A. H., Kumar, N., Junaid, P. M., Shams, R., & Khan, S. A. (2021). Formulations and quality characterization of low salt flat bread: Effects on functionality, rheological and sensory properties. Applied Food Research, 1(1), 100005., Shams, R., Rizvi, Q. U. E. H., Dar, A. H., Majid, I., & Khan, S. (2021). Nanocomposite: Potential Nanofiller for Food Packaging Applications. Biobased Packaging: Material, Environmental and Economic Aspects, 119-131., Shams, R., Rizvi, Q. E. H., Dar, A. H., Majid, I., Khan, S. A., & Singh, A. (2021). Polysaccharides: Promising Constituent for the Preparation of Nanomaterials. Polysaccharides: Properties and Applications, 441-457., Dar,

A. H., Makroo, H. A., Shah, S., & Khan, S. (2020). Nuclear Magnetic Resonance (NMR) Spectroscopy for Quality Determination of Fruits and Vegetables. In Sensor-Based Quality Assessment Systems for Fruits and Vegetables (pp. 199-230). Apple Academic Press., Shabnam, S., Dar, A. H., Aga, M. B., & Khan, S. A. (2020). Effect of date powder and peach pomace powder on the microstructure and functional attributes of cookies. J. Postharvest Technol, 8, 37-49., Manzoor, N., Dar, A. H., Khan, S., Hakeem, H. R., & Makroo, H. A. (2019). Effect of Blanching and Drying Temperatures on Various Physicochemical Characteristics of Green Beans. Asian Journal of Dairy and Food Research, 38(3), 213-223., Greenhouse Technology for Sustainable Agriculture: ISBN 9781774915233. Publisher AAP Co-Published with CRC Press and Taylor and Francis, Recent Trends in Edible Films and Coatings for Food Preservation: Under process Publisher: CABI, Novel Technological Interventions in Food Packaging Applications: Under Process Publisher: AAP

OUTREACH ACTIVITIES

- Coordinator Industry connect from 01-10-2021 to 31-12-2022
- Coordinated 3 Day International workshop on emerging trends based on Artificial Intelligence and Machine Learning in Food Processing at IUST Awantipora
- Organized a Two Day National WorkShop on Food Safety: Current Scenario and Future Challenges at Department of Food Technology, Islamic University Of Sciences and Technology Awantipora
- Organized a Two Day Workshop on Outcome Based Education in collaboration with National Board of Accreditation at Islamic University of Sciences and Technology Awantipora under TEQIP III
- Organized an Induction Program for B.tech First Semester Students at School of Engineering and Technology IUST Awantipora under TEQIP III
- Organized a workshop in collaboration with Elsevier India on Effective Research Planning and execution using Scopus and ScienceDirect at IUST Awantipora
- Coordinated a workshop on sustainability as part of Corporate Social Responsibility (CSR) in Coca-Cola
- Coordinated a workshop on Insights on Novel Product Development in Industry in collaboration with Hindustan Unilevel Limited
- Coordinated National level Industry-Academia Conclave 2.0, Bridging the gap Ideation to Industry at IUST Awantipora
- Coordinated workshop on National Science Day 2022 at IUST Awantipora
- Organized webinar on Lets Crack the GATE at IUST Awantipora
- Coordinated one day Industry Academia Interface at IUST Awantipora on 10th February 2021
- Organized a webinar in collaboration with Anton Paar India on Characterizing Nano Particles: Insights to Dynamic Light Scattering (DLS) and Electrophoretic Light scattering
- Organized a webinar in collaboration with Elsevier on Accelerate Research Planning using Elsevier, ScienceDirect and Mendeley on 4th

May 2020

• Organized a webinar on exploring web of science, End Note X9, Journal citation report and Incites for promoting excellence in research in collaboration with Clarivate Analytics on 5th June 2020

COMMITTEES

- Attended NPTEL awareness workshop conducted by Indian Institute of Technology Kanpur
- Member of Editorial Board for Agri Food Magazine
- Internships at CIAE Bhopal, CIPHET Abohar and CITH Srinagar
- Life member of Association of Food Scientists and Technologists of India

RESEARCH GRANTS

- World Bank AICTE, 06/2019, 07/2021, Design and Development of Solar Tree Assisted Infrared Greenhouse hybrid Solar Dryer, Rs 13.19 lakh, Project Investigator
- World Bank AICTE, 06/2019, 07/2021, Design and Development of Phase Change Material Assisted hybrid Greenhouse Solar Dryer for walnut drying, Rs 6.04 lakh, Project Investigator
- World Bank AICTE, 06/2019, 07/2021, Negative Pressure Cavitation extraction of Essential Oil from Lavender:Kinetics and Modelling, Rs 2.67 lakh, Project Investigator
- World Bank AICTE, 06/2019, 07/2021, Design and Development of UV assisted hybrid Solar Pasteurizer for Milk, Rs 1.5 lakh, Project Investigator

PERSONAL INFORMATION

Date of Birth: 12/10/1991

TRAINING

- IIT Kharagpur: International Conference on Emerging Trends in Agricultural and Food Engineering (2016)
- HIMCOSTE Shimla: 2nd Himachal Pradesh Science Congress on Science and Technology for Sustainable Livelihood in Indian Himalayan Region 2017
- PAU Ludhiana:21st Punjab Science Congress on Scientific Advances for Inclusive Development and Environmental Protection. 2018
- Chandigarh:International Conference on Agriculture and Biotechnology ICABT - Chandigarh 2017
- SKUAST Kashmir:National Seminar on Saffron Production and Promotion 2017
- SYMSAC X 2021:International symposium on spices as Flavours & Functional foods ICAR

- ICFoST 2021:Indian Convention of Food Scientists and Technologists organized by CSIR CFTRI
- AMIFOST 2022:Organized by Amity University in 2022
- KETSAC 2022:International conference on Key enabling technologies for Sustainable Agri Food Chain organized by NIT Rourkela in 2022
- ICSEA Ludhiana:International Conference on Sustainable Environment and Agriculture ICSEA 2017
- NPIU-World Bank New Delhi:Attended One week training workshop on induction for achieving World Bank Project TEQIP III objectives in 2018
- National Institute of Bio-Energy PunjabOne week workshop on Digital pedagogy in 2019
- National Institute of Bio-Energy Punjab:National Training program on Renewable Energy from 10-12th March 2021
- One day orientation workshop for Collaborative Research Scheme on 16th July 2019 at New Delhi
- IIT BOMBAY: One week workshop on computational Fluid Dynamics

ACCOMPLISHMENTS

• Coordinator for a Minsitry of External Affairs, Government of India project to establish India-Zanzibar Vocational Training Centre at Zanzibar Tanzania.

CERTIFICATIONS

• Qualified Indian Council of Agricultural Research - NET(National Eligibility Test)