

# Placement Brochure

The Career Overture



## Department of Food Science and Technology

School of Applied Sciences & Technology

University of Kashmir

Hazratbal Srinagar-190006

(NAAC Accredited Grade 'A+')



Dr. Adil Gani  
Coordinator

### **Coordinator's Desk Message**

Welcome to the Department of Food Science & Technology, University of Kashmir.

Founded in 2008, the department opened its doors in 2010 as a major hub for research, merging relevant disciplines to address crucial problems in food sciences and technology.

Taking advantage of the uniquely wide diversity of scientific fields at University of Kashmir, the department's research and education activities span from food production and sustainability, through metabolism, microbiome, and human performance. The department consistently strives to advance research and generate the new knowledge that sets the basis for the solutions of the big challenges of humanity in relation to food and sustainability.

I welcome you to explore our department, programs, and services, and help us to advance the mission of the department to make the region a "Healthy Region", and surplus in food production and processing.

### **About Department**

In order to generate trained manpower for the food processing sector, the Department of Biotechnology, Ministry of Science & Technology, Govt. of India sanctioned a project entitled "Enhancing Research Capacity and Initiating Integrated M.Sc. and PhD programme in the area of Food Science and Technology" in favour of University in 2008. The Vice-Chancellor in anticipation of the approval by the competent body has been pleased to authorize the establishment of the "Department of Food Science & Technology" and introduce five years

integrated Master's and Doctorate programme w.e.f 12-05-2008 which was later on approved by the University Council at its meeting held on 02-06-2008.

### **Goals of the Department**

- ✓ Generation of skilled and trained manpower to meet the human resources requirements of the food industry.
- ✓ To bridge the technological and research gaps in the Indian food industry to make it more competitive in international food markets.
- ✓ To bring traditional foods of India under R&D for their mechanized production and better quality control and marketing.
- ✓ To prevent heavy losses, both in quantity as well as quality, in foods especially fruits and vegetables during their handling, storage and transportation.
- ✓ Generation of laboratory facilities for quality evaluation of foods to ensure food safety.

### **Why Recruit Our Students?**

The department is currently imparting knowledge to students regarding different aspects like physical, chemical and microbiological aspect of food so as to teach them spoilage, preservation, value addition and safety of foods. Students are provided with the opportunities to investigate the specific problems either in the laboratory, industry or pilot plant and provide them an opportunity to have in depth understanding of areas that interest them more. Students are encouraged to process some locally grown fruits/vegetables decreasing their peak production season & market the product through a programme known as "Earn while you learn". These programmes facilitates the students to understand the commercial aspects of food processing. Department has tried its best to develop strong linkages with the industries. Such linkages will facilitate the department to train its students and scholars as per requirements of the industry. Faculty, students and scholars are encouraged to take up industrial assignments. In future professionals working in the industry will be incentivized to participate in the teaching programme of the department through MOU's with industry. Linkage with industry will be developed in a manner that is minimally beneficial to both department & the industry. Because of these initiatives our students are highly skilled and will definitely be an asset to the industry they joins.



**Students performing laboratory experiments**

**Faculty of the Department**

<b>S. No.</b>	<b>Name of faculty</b>	<b>Designation</b>
1	Dr. Adil Gani	Coordinator, Senior Assistant Professor
2	Dr. Idrees Ahmad Wani	Senior Assistant Professor
3	Dr. Sabeera Muzzaffar	Senior Assistant Professor
4	Dr. Hilal Ahmad Punoo	Senior Assistant Professor
5	Dr. Asima Shah	INSPIRE Faculty
6	Dr. Bilal Ahmad Ashwar	Contractual Lecturer
7	Dr. Sadaf Parveez	Contractual Lecturer

### **Other Strengths of the Department**

The Department of Food Science and Technology has two research laboratories, one cell culture lab, two PG laboratories, one pilot plant, two classrooms, two staff rooms, one conference hall, one office and one library. The labs are equipped with advanced analytical instruments, most of which are imported. The laboratories of the department are equipped with sophisticated equipment like Reverse-phase High Performance Liquid Chromatography, Texture analyser, UV-visible spectrophotometer, ATR-FTIR, Rotary evaporator, Differential Scanning Calorimeter, PCR, Rapid Visco Analyser, Gel Doc, Spray dryer, Freeze dryer, ELIZA reader, Laminar flow and Inverted microscope. Departmental library is equipped with four computer systems for purpose of surfing the journals available online. Faculty, research scholars and students have access to more than four thousand journals through UGC consortium, in addition to ten journals whose hard copies are available in the department. The department is in possession of a well-established food processing pilot plant having facilities for thermal processing (canning), fruit and vegetable processing, baking, packaging, vacuum drying etc. The facility of the pilot plant is extended to scholars & students of other universities within and outside the state. The department has so far conducted eight short term training programmes for entrepreneurs, housewives and some government agencies. The said facility is offered to researchers and students of the other institutions of the country e.g. Central University of Kashmir, Jamia Hamdard, Amity University, SKUAST etc. The food products produced as a result of training to students and entrepreneurs in the pilot plant are sold on no profit no loss basis. The income thus generated helps the department to meet the operational costs of the pilot plant.



**Students attending the international conference organized by the Department**



**Students attending the workshop organized by the Department**

## **Research and Innovation**

### **Research Profile:**

The department has an impressive research profile as is evident by total number of publications in last ten years. The impact factor of publications is in the range of 1-7. The total number of citation earned by the publications of the department is significant and comparable to some good institutions of the country. The department has conducted seminars/ conferences on some themes which are of national/ international importance e.g, “Biotechnological Interventions for upgradation of Food products of India” 2015, “Advances in Biopolymers”, 2018, National Conference on Recent Advances In Understanding the Role of Phytochemicals in Human Health (RAURPHH-2018), international conference on ‘Interface between Agriculture, Food, Chemical and Biological Sciences-2022. The events organized by the department had participation from some reputed institutions like National Agri-food Biotechnology Institute (NABI, Mohali Chandigarh), Institute of Chemical Technology (ICT, Mumbai), NDRI (Karnal), Jamia Milia

Islamia (New Delhi), IIT (New Delhi), etc. The faculty of the department regularly attends events of their research/ academic interest within & outside the country, thus getting an international exposure. The current thrust area of research interest includes:

- a) Macromolecules and their importance to food industry
- b) Micro and nanoencapsulation of bioactives and probiotics
- c) Active packaging
- d) Cultured meat
- e) 3-D printing
- f) Nutraceutical/functional foods
- g) Utilization of food industry waste
- h) Storage of perishable foods
- i) Indian fermented vegetable

**Future Plans:**

Developing strong linkages with industry will be major focus of the department in future. Such linkages will facilitate the department to train its students and scholars as per requirements of the industry. Components of training to students through industry, departmental pilot plant and field visit will be increased. Faculty, students and scholars will be encouraged to take up industrial assignments. Professionals working in the industry will be incentivized to participate in the teaching programme of the department through MOU's with industry. Linkage with industry will be developed in a manner that is minimally beneficial to both department & the industry.

Since Horticulture is the major commercial activity of the region, future planning of research will focus on postharvest management of horticulture produce besides nuts, region specific spices etc. Students will be imparted training in handling, storage, processing and processing working in industry.

Short term courses on food safety and quality control will be started for the benefit of students and professional working in industry.



The infrastructure especially the Laboratories and pilot plant of the department will be upgraded in accordance with the plans as mentioned above so as to fulfil the requirement of students, scholars and industry.

The major thrust areas of research will be:

- Characterization and value addition of underutilized agricultural products.
- Valorization of fruit processing wastes.
- Novel approaches of food preservation like bio-preservation, irradiation and active packaging.
- Speciation and adulteration of meat products.
- Processing and nutraceutical aspects of nuts.
- Refinement of Fermentation Technology.
- Functional food development.

**Details of on-going/completed projects funded by DBT/other funding agencies**

<b>Description</b>	<b>Title of the Project</b>	<b>Faculty Name</b>	<b>Acting As</b>	<b>Funding Agency</b>	<b>Dated</b>	<b>Amount Sanctioned/ Proposed (in Rs.)</b>
Project Ongoing	Stabilisation and valorisation of seed oils from stone fruits by developing nano pickering emulsions	Dr Adil Gani	PI	DBT	08-02-2024	53,99,920/-
Project Completed	Technological Interventions and Their Application for Sustainable Livelihood of Women Folk Involved in the Production of Various Traditional Milk- based Fermented Foods of Himalayan Belt of J&K	Dr Adil Gani	PI	NMHS	08-03-2018	49, 00,000/-
Project Ongoing	Technological intervention to enhance the bioactivity	Dr Idrees Ahmad Wani	PI	ICMR	24-02-2023	23,67618.00

	of basil seed oil functional characterization of basil seed protein					
Project completed	Emerging Techniques of Evaluation of Milk Products	Dr Hilal Ahmad Punoo	PI	SERB -DST	22-11-2021	240,000.00
Ongoing project	Post-harvest management of fresh walnut kernels by modified atmosphere storage and edible nano-coating	Prof F. A. Masoodi Dr. Adil Gani & Dr Hilal Ahmad Punoo	PI  CoPI	Research and Innovation component of RUSA 2.0.	16-09-2020	11,300,000.00
Ongoing Project	Exploration of wild fruits of Himalayan Kashmir for the development of personalized fruits for the future food industry	Dr Sabeera Muzaffar	PI	JKST&IC	22-01-2024	2500000.00
New project sanctioned	Microbiological techniques of Food Products	Dr Hilal Ahmad Punoo	PI	SERB-DST	14-11-2022	240,000.00
New project sanctioned	Development of isoflavone fortified fruit beverages by	Dr Hilal Ahmad Punoo	PI	ICMR	06-07-2022	2,299,404.00

	incorporation of soy whey with multi therapeutic benefits					
New project sanctioned	Development and Evaluation of Soy-based foods	Dr Hilal Ahmad Punoo	Mentor	SERB-DST	02-08-2022	150000
New project sanctioned	Studies on Development of isoflavone fortified fruit based whey beverages	Dr Hilal Ahmad Punoo	PI	DBT	25-09-2023	650000
New project sanctioned	Nano-encapsulation of isoflavones from soy whey and their controlled release in yoghurt targeting health benefits	Dr Hilal Ahmad Punoo	PI	UGC DAE	01-02-2024	243000
New project sanctioned	Development of functional yoghurt by the incorporation of omega-3 fatty acids from vegetable sources	Dr Hilal Ahmad Punoo	PI	JKST&IC	25-02-2024	112000

**Research projects initiated and completed:**

<b>Description</b>	<b>Title of the Project</b>	<b>Faculty Name</b>	<b>Acting As</b>	<b>Funding Agency</b>	<b>Dated</b>	<b>Amount Sanctioned/ Proposed (in Rs.)</b>
New project sanctioned	Value Addition of Fruits and Vegetables of Western Himalayas through Eco-friendly and Low-Cost Technologies	Prof F. A. Masoodi Dr Sabeera Muzaffar	PI Co-PI	NMHS, Ministry of Environment, Forestry and Climate Change, GOI		40.286 Lakhs
New project sanctioned	Refinement of traditional fermentation technology of some vegetable pickles of J&K region	Prof F. A. Masoodi Dr Adil Gani	PI Co-PI	Ministry of Food Processing Industries (MOFPI), GOI		42.71 lakhs
New project sanctioned	Technological interventions and their application for sustainable livelihood of women folk involved in the production of various traditional milk-based fermented foods of Himalayan belt of J&K	Dr. Adil Gani	PI	NMHS-PMU	05-04-2018	4,900,000.00

New project sanctioned	Enhancing shelf life of fresh fruits.....	Sajad Mohd Wani	PI	DBT	08-02-2018	2,649,000.00
completed project	Safety, Quality and Nutraceutical Status of Kradi-A traditional Dairy based fermented food of Himalayan Regions of J& K	Dr. Adil Gani	PI	ICMR	01-01-2016	2,200,000.00
Ongoing project	Fortification of active ingredients from saffron and sea buck thorn for development of novel functional foods	Dr. Adil Gani	PI	Department of Science and Technology, SERB	13-09-2017	4,400,000.00

**Projects Completed:**

1. Enhancing the quality and nutraceutical status of traditional meat products of India by use of enzymes and protective microorganisms. Funding Agency: Department of Biotechnology, Govt. of India. Cost of Project: 67.5 lakh. PI: Prof F. A Masoodi
2. Nutraceutical potential of  $\beta$ - glucan its utilization for making functional foods and as an encapsulating material for target delivery of probiotics. Funding Agency: Department of Biotechnology Govt. of India. Cost of Project: 73.8 Lac. PI: Dr Adil Gani
3. Stability of phytochemicals during processing and storage of perishable temperate fruits. Funding Agency: Department of Biotechnology Govt. of India. Cost of Project: 47.23 Lac. PI: Dr Sajad Mohd Wani
4. Wheat flour modification by bacterial, enzymatic and chemical interventions to combat coeliac disorders. Funding Agency: Department of Biotechnology Govt. of India. Cost of Project: 6.38 Lac. PI: Dr Adil Gani
5. Extraction of resistant starch from Rice and Horse chestnut, its utilization as an encapsulating agent for targeted delivery into the colon. Funding Agency: MoFPI. Cost of Project: 54.73 Lac. PI: Dr Adil Gani.

**Industry Collaborations:** In order to make the programme highly professional and equip the students with hands in training, a component of “Implant Training” has been incorporated in the course. Following food processing industries within J&K and outside the state have assisted the department in imparting training to students:

S. No.	Name of Industry	Major Product/Service
1.	M/S Fungicides India Ltd	i. Apple Juice concentrate ii. Apple Juice (Tetra Pack) iii. Controlled Atmospheric Storage iv. Grading of Apple (Automatic) v. Blended Fruit beverages
2.	M/s Zum-Zum Milk Products	Packed Milk
3.	Field Fresh Foods Pvt. Ltd. Punjab	Packing and Storage of Fresh Foods

4.	Cremica Industries Pvt. Ltd. Punjab	Bakery Products
5.	Mother Dairy India Ltd. Delhi	Packaging and processing of milk
6.	Delhi Milk Scheme (DSM)	Packaging and processing of milk
7.	Nestle Pvt. Ltd. Moga, Punjab	Noodles, Ketchups etc.
8.	Hind Agro Pvt. Ltd. Aligarh. U.P	Meat Processing
9.	Apple Juice Processing Plant, Sopore	Apple Juice concentrate
10.	Nijjer Agro Foods Ltd. Amritsar	Fruit products
11.	Ludhiana Beverages Pvt. Ltd., Ludhiana	Coca Cola
12.	Parle Biscuits Pvt. Ltd., Bahadurgarh	HR. Biscuits & Crackers
13.	M.D. Frozen Food Exports Pvt. Ltd.	Processing & export of frozen meat

#### Placements in the last 5 years

S. No.	Student Name	Company/Institution	Year
1.	Sajad Mohd Wani	SKUAST Kashmir	2020
2.	Mariya Batool	Kanwal Agro Food Industries	2020
3.	Shahnawaz Bashir	Rural Development Kashmir	2021
4.	Umar Manzoor	Indian Agribusiness Systems Ltd	2021
5.	Ouzma Jan	Zum Zum Milk Products	2022
6.	Ishfaq Mohiuddin	Indian Agribusiness Systems Ltd	2022



### List of Prominent Recruiters

S. No.	Industry	Contact No.
1.	Bonn Industries, Ludhiana Punjab India	18002701125
2.	Sukhjit Starch & Chemicals Ltd., Punjab, India	91-1824-468800
3.	Verka Dairy Plant, Amritsar Punjab India	073555 48163
4.	Pepsico, Ludhiana, Punjab, India	09779716751, 919812821666
5.	Cremica Biscuit Manufacturers, Jalandhar Bye Pass, Phillaur, GT Road West, Ludhiana Punjab	01826222826
6.	Fil Industries Limited, Rangreth, Srinagar, Jammu and Kashmir India	91-194-2300507, 91-194-2300952
7.	Zum Zum Milk Products, Lasipora Pulwama, Jammu & Kashmir, India	09596400440, 919596400443
8.	Snowcap Milk, Cheshmashahi, Srinagar, Jammu and Kashmir	1800 257 5487
9.	Henna Pickles, Srinagar, Jammu and Kashmir India	916006286690
10.	Zainul Abdeen Pickle Srinagar, Jammu and Kashmir	918825031446
11.	Kanwal Spices, Anantnag Jammu and Kashmir	919958427799
12.	Khyber Agro Farms Pvt.Ltd, Hazuri Bagh, Srinagar Jammu and Kashmir India	91- 194-2475711

### Contact Information

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