MOFPI
खाद्य प्रसंस्करण उद्योग मंत्रालय
सत्यमेव जयते **Ministry of Food Processing Industries**

स्वच्छ भारत
एक कदम स्वच्छता की ओर

NIFTEM-K

राष्ट्रीय खाद्य प्रौद्योगिकी उद्यमशीलता एवं प्रबंधन संस्थान, कुंडली

राष्ट्रीय महत्व का संस्थान (आईएनआई)

वेबसाइट: www.niftem.ac.in, Email – admission@niftem.ac.in, Phone – 0130-228-1100/1101/1020,

प्लॉट नंबर 97, सेक्टर-56, एचएसआईआईडीसी इंडस्ट्रियल एस्टेट, कुंडली, जिला सोनीपत, हरियाणा -131028

NATIONAL INSTITUTE OF FOOD TECHNOLOGY ENTREPRENEURSHIP AND MANAGEMENT (NIFTEM), KUNDLI
Institute of National Importance (INI)

Admission Notice, Ph.D Programme, 2023-24

NIFTEM is offering Ph.D. programmes in the following departments and areas in the academic year 2023-24.

- **Agriculture and Environmental Sciences (AES)**
- **Basic and Applied Sciences (BAS)**
- **Food Business Management and Entrepreneurship Development (FBMED)**
- **Food Engineering (FE)**
- **Food Science and Technology (FST)**

AREAS OF RESEARCH:

a) Agriculture and Environmental Sciences: Postharvest management, Postharvest physiology and processing of fruits and vegetables, Postharvest engineering, Design and development of post-harvest processing equipment and machines, Heat recovery and process integration, Energy saving technologies and Renewable energy applications, Supply chain management of fresh Agri-horti produce, Agriculture Extension, Food microbiology, Biomass utilization for nutraceuticals and food applications, Bioremediation, Postharvest biotic and abiotic stress management, Environmental issues in food sector, Food contaminants, Carbon and water footprint, Life cycle assessment of food products, Utilization of food sector organic waste, Impact of climate change on postharvest quality of agri-horti commodities, Agro-waste bioprocessing, Nanobiotechnology applications in food sector, Nano-biocatalytic degradation of emerging pollutants and agrichemicals, Biochemical Engineering, Enzyme engineering and Technology.

b) Basic and Applied Sciences: Experimental Physics, Nanomaterials for Biosensors

and Sustainable Energy Applications, Mathematical Modelling in Biology and Infectious Disease, Stochastic Modelling, Queuing Theory, Artificial Intelligence, Computational Modelling, Nano-encapsulation, Biopolymers, Food Packaging, Edible Films and Coatings, Prebiotics and Probiotics, Mineral Fortification, Chemical Contaminants in Food.

c) Food Business Management and Entrepreneurship Development: Food & Agribusiness, Entrepreneurship & Strategy, Operations & Decision Sciences, Finance, Accounting & Economics, Marketing and Organization Behavior & Human Resources.

d) Food Engineering: Sustainable food processing technologies, Bio waste utilization, New product development, Drying Technologies, 3D Food Printing, Novel Food Processing technologies, Millet processing, Food Engineering, Novel Food Processing technologies, Plant based proteins, Hydrogels, Liposomes application in food, Bioactive compounds from food sources.

e)   Food Science and Technology: Food Technology, Waste Utilization, Value addition, New Product Development, Food Safety and Toxicity evaluation, in vitro and in vivo Toxicity and Safety studies of developed food/food ingredient, Risk Assessment of various contaminants/toxicants in food/Bio- availability & ADME studies, in vitro and in vivo digestibility studies, Safety/Migration studies of packaging material/components, Nutraceuticals & Functional foods, Clinical Nutrition, Dietetics, Nutritional Biochemistry, , Food designing, Food Fortification, Community Nutrition and Public Health Nutrition.

ELIGIBILITY CRITERIA:

Eligibility Criteria: M. Tech. /Master's Degree in a relevant discipline with at least 55% marks with a relaxation of 5% of marks (from 55 % to 50 %) for the candidates belonging to SC/ST/OBC(Non-Creamy layers)/ Differently-abled category.

Candidates can apply in multiple academic departments, separate applications for each department will be considered.

Department	Essential Qualification
Agriculture and Environment Sciences **(AES)**	M. Tech. in Food Science/Food Technology/ Food Technology and Management/Food Safety and Quality Management/ Food Process Engineering and Management/ Food Supply Chain Management/ Biotechnology/ Biochemical Engineering/ Nanotechnology/ Post Harvest Technology/Food Engineering / Process and Food Engineering / Environmental Engineering/ Environmental Management and allied

	Disciplines
	OR M.Sc. Degree in Food Science & Technology/ Food and Nutrition/ Biochemistry/ Microbiology/ Biotechnology/ Life Sciences/ Agriculture Science/ Horticulture/ Postharvest Management/ Postharvest Technology/ Cold Chain Management/ Environmental Sciences and allied areas from recognized Institute/University.
Basic and Applied Sciences **(BAS)**	M. Tech. in Food Science/ Food Technology and Management/ Food Technology/ Dairy and Food Technology/ Process Engineering and Management/ Food Biotechnology/ Food Safety and Quality Management/ Food Supply Chain Management from a recognized University / Institute. In addition, or Master's degree in Food Science and Technology/ Biochemistry /Microbiology/ Chemistry/ Biotechnology/ Food biotechnology/ Food and nutrition/ Life Science/ Agriculture Science/ Environmental Science/ Mathematics/ Statistics/ Operational Research/ Physics/ Materials Science/ Nanoscience and Technology from a recognized Institute/ University.
Food Business Management and Entrepreneurship Development **(FBM) &ED**	Two year MBA /M.Com/MA/ M.Tech (Plant Operations/ Industrial Engineering or its equivalent from a recognized university or institute or CA/CS/ICWA.
Food Engineering **(FE)**	M.Tech in / Food Technology and Management / Food Process Engineering and Management/ Food Technology/ Food Process Engineering/ Food Engineering / Dairy Engineering/ Dairy technology /Agriculture and Food Engineering/ Mechanical Engineering/ Automation & Robotics engineering / Chemical Engineering / Biochemical Engineering/ Food and Bio Process Engg. / Dairy and Food Engg./Post Harvest Process and Food Engg. and Management/Food Technology and Management/Farm machinery and Power Engg.

| Food Science and Technology (FST) | M.Tech. Food Science / Food Technology and Management / Food Safety and Quality Management / Food Supply Chain Management/ Food Technology / Food Process Engineering / Food Process Engineering and Management/ Food Engineering / Dairy Engineering / Dairy Technology / Agriculture Process Engineering / Agriculture & Food Engineering/ Food Biotech/ Food and Fermentation/M-Tech. in Food and Bioprocess Engineering, Process and Food Engineering, Nanoscience and Technology/ Biochemical Engineering from a recognized university /institute.

In addition, M.Sc./Master's degree in Food Technology / Food Science & Technology / Nutritional biochemistry/ Food Science & Nutrition / Clinical Nutrition/Community sciences and Dietetics/Toxicology/ Vet.Pharmacology & Toxicology/ Nanotechnology/ Nanoscience and Technology/ Meat Science/ Meat Technology/ Animal Product Technology/ Livestock Product Technology are eligible for admission. Candidates may be required to go deficiency courses as per requirement. |
|---|---|

SELECTION & MODE OF PROGRAMME

UGC/UGC-CSIR JRF, any other JRF holders who can avail fellowship for PhD programme at NIFTEM shall be exempted from Research Entrance Test (RET). All other candidates (even opting for Part-Time mode) will have to appear for RET.

RET syllabus and Interview

As per entrance paper choice, the syllabus of the **Research Entrance Test (RET)** shall consist of 50% of research methodology and 50% shall be subject specific. **There shall be NO Negative Marking for Wrong Answer.** Syllabus for the entrance exam will be uploaded on NIFTEM website.

 RET shall be qualifying with qualifying marks as 50%. A relaxation of 5% of marks (from 50% to 45%) shall be allowed for the candidates belonging to SC/ST/OBC (Non-Creamy layers)/Differently-abled category in the Research Entrance Test conducted by the Institute.

 RET and Interview to be conducted by NIFTEM (Details to be uploaded on NIFTEM website).

Interview scheme: Both JRF and RET qualified candidates will appear for an interview/presentation where the candidates would be required to present their research areas/interest before the interview panel. For selection of candidates, a weightage of 70% to RET and 30% to the performance in the interview/viva-voce shall be given." Candidates

holding fellowship appearing directly for interview, marks obtained out of 30 to be first converted to 100 and then normalization of scores (for both type of candidates, i.e., fellowship holders and non-fellowship holders) will be done before preparing the final merit list. Separate department-wise (subject specific) merit lists will be prepared.

After the reporting at NIFTEM by the candidate, if any vacant seats are available due to seat cancellation/withdrawal/Fee unpaid etc. it may be offered to the next student in the merit list in the respective reservation category only.

JRF/SRF candidates already working in the funded projects at NIFTEM can be enrolled as Ph.D. students provided they qualify RET and interview. Such candidates will get fellowship/JRF till the end of their research project. After the project is finished, such candidates will get NIFTEM Ph.D. fellowship, provided he/she has secured NIFTEM Ph.D. fellowship at the time of admission as well as it will be as per NIFTEM Ph.D. regulations.

Relieving letter/Permission from parent institute is essential for pursuing Ph.D in Part-time mode and leave granted shall be required with the application process.

DEPARTMENT WISE PH.D SEAT MATRIX, 2023-24

Department	No. of seats					
	UR	SC	ST	OBC	EWS	Total
Agriculture and Environmental Sciences (AES)	6	2	1	4	1	14
Basic and Applied Sciences (BAS)	3	2	1	2	1	09
Food Business Management and Entrepreneurship Development (FBM&ED)	4	1	-	2	1	08
Food Engineering (FE)	3	2	-	3	1	09
Food Science and Technology (FST)	6	2	1	3	1	13

SEAT MATRIX AND FELLOWSHIP

Total number of Ph.D. Seats for the academic session 2023-24 are given in the NIFTEM website under "**Department wise PhD Seat Matrix 2023-24.**" The following seat matrix is placed for two departments is as below:

Department	Area of Research	Number of seats
FBMED	Food & Agri Business	1
	Entrepreneurship and Strategy	1
	Operations & Decision Sciences	04
	Finance, Accounting & Economics	1

	Marketing	1

Department	Area of Research	Number of seats
BAS	Experimental Physics, Nanomaterials for Biosensors and Sustainable Energy Applications	1
	Mathematical Modelling in Biology and Infectious Disease	4
	Stochastic Modelling, Queuing Theory, Artificial Intelligence, Computational Modelling	1
	Nano-encapsulation, Biopolymers, Food Packaging, Edible Films and Coatings	2
	Prebiotics and Probiotics, Mineral Fortification, Chemical Contaminants in Food	1

FELLOWSHIPS

Only 03 candidates per department will get NIFTEM Ph.D. fellowship based on merit for the year 2023-24. Fellowship would be extended beyond 3rd year as per NIFTEM Ph.D. regulations.

Candidates who will be pursuing in part time mode or sponsored candidates will NOT get any NIFTEM Ph.D. fellowship.

****