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Dr. Ajit Kumar, Vice Chancellor, National Institute of Food Technology Entrepreneurship and Management (NIFTEM) says that his students are being inculcated by the value of real Indian rural scenario by providing first hand information to them. He spoke exclusively to Prasun Choudhury. Excerpts



What is the scene on placement of NIFTEM Students after compliance of their degree?

NIFTEM has successfully achieved 100 per cent placement for its students who have completed their M.Tech Degree (Academic year 2012-14). The students were placed in different industries like Dabur India Ltd., ITC Ltd., Pepsico, Mohan Meckines, M/s. Bector's (Cremica) Food Pvt. Ltd., Aachi Masala, Kohinoor Foods. NIFTEM has a full fledged Cooperate Resource Division (CRD) to look after the placement of students. We make our advance planning keeping in view the timelines so as to ensure timely placement of students matching their best talent with the market requirements.

How do you place your students in different industries for internship?

NIFTEM has a strong belief that its strong association with industries is good for both NIFTEM as well as the industries; we have got more than 80 industry members in NIFTEM Industry forum. Periodically, our faculty members visit industries and people industries visit NIFTM at regular intervals. For M.Tech (2013-15), we have successfully deployed 57 of our students for internship in different industries like GSK, General Mills, Nestle, Amul, Brittannia Industries, Bikanerwala, Uflex, Coca Cola. Haldirams, Aachi Masala, TJ Brew etc. 28 students opted for research.

Has NIFTEM initiated any project in line to the Hon'ble Prime Minister's "Make in India" project?

Under our Hon'ble Prime Minister's "Make in India" project NIFTEM proposes to establish a National Centre for Indian Traditional Foods at the NIFTEM campus to conduct studies on Indian traditional foods in order to promote globalisation of these foods & capture the world food market. Activities under this include (i) establishment of the science of Indian traditional foods in relation to nutritional quality and environment, (ii) standardisation of the process of preparation of the traditional foods leading to standardisation of recipes,(iii) development of appropriate machinery for the mass production of the traditional foods and (iv) commercialisation of the Indian traditional foods in India as well as globally. Some recipes selected for the make in India Project are (1) Sattu fortified (Bihar, Eastern UP, West Bengal); (2) Khakhra (Gujarat); (3) Puran Poli (Maharashtra); (4) Khandvi (Gujarat); (5) Boondi Laddoo (Rajasthan, UP, Bihar); (6) Chicken Kabab (Punjab, Himachal); (7) Prawn Curry (West Bangal, Odisha, Kerala, Andhra Pradesh); (8) Chila (North India); (9) Gustava (Kashmir); (10) Kaju Katli (Pan India); (11) Vada (Karnataka, Tamil Nadu), (12)

The curriculum and research at NIFTEM are essentially driven by the needs of industry and entrepreneurs. While the B.Tech curriculum is a hybrid between food technology and business management, the M.Tech curricula have been designed precisely on the current needs of the food sector.

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What are the innovative components of NIFTEM's curriculum and research program?

The curriculum and research at NIF-TEM are essentially driven by the needs of industry and entrepreneurs. While the B.Tech curriculum is a hybrid between food technology and business management, the M.Tech curricula have been designed precisely on the current needs of the food sector. The thesis research is driven by the practical, technological and management issues of the food industry and trade. There are 30 research projects at NIFTEM today which have direct relevance to the issues flagged by the food industry.

NIFTEM's Frontline Demonstration Centre-cum-Primary Processing Centre

With a view to prevent post harvest losses and add value to the horticulture produce, two Frontline Demonstration Centre (FLDC) cum-Primary Processing Centre are being set up one at Manauli village and another at NIFTEM campus. The

Plants will be equipped with appropriate set of equipment for sorting, washing, grading, value addition and packaging along with appropriate storage facilities to provide training and demonstration to villagers, entrepreneurs and students related to primary processing, secondary processing and storage of agricultural produce using hybrid renewable power sources. These two projects are established under PPP model, where all the equipment will be provided under NHB & NHM funds. These centres will be run by the local villagers and students under the guidance and management of faculty members of the Department of Food Science Technology and Food Engineering and will be self sustaining units.

Students foreign exchange programme

Meritorious students from each batch of B. Tech. and each of the five M. Tech. programmes are selected to be sent to foreign universities with whom we have MoUs on an exchange programme of academic learning with 100 per cent airfare support. During June 2013 and 2014 students visited the following universities:

- University of Nebraska-Lincoln, USA: 03 (M. Tech.) and 08 (B. Tech.)
- Kansas State University, USA: 08 (M. Tech.)
- University of Saskatchewan, Canada: 02 (M. Tech.) and 11 (B.
- Institute for Food Safety and Health, IIT, Chicago 04 (M. Tech.) and 07 (B. Tech.)





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Promoting research: Students Innovation Fund Scheme:

NIFTEM has created an Innovation Fund for its students to encourage research and promote innovation driven learning. Under this initiative, NIFTEM extends financial assistance to the students to motivate them to undertake innovative projects, other than the mandatory thesis research, as individuals or groups. NIFTEM provides 100 per cent of the innovation project cost upto ₹15.00 lakh for a project. A Project on "NIF-TEM Waste Management" under this scheme has already been sanctioned and eight more projects are under various stages of sanctioning.

Scholarship to students

NIFTEM has two types of scholarships i.e. Merit Scholarship and Merit-cum-Means Scholarship to students admitted in B.Tech. and M.Tech. Apart from the above NIF-TEM have the following fellowships: (1) Fellowships for M. Tech students (2) Fellowships for Ph.D. students (3) Stipends and (4) Industry Sponsored Scholarship. Besides, NIFTEM has the scheme of 'Earn while you learn'.

International and National Joint Collaborations.

NIFTEM has already initiated a process for widening its academic and research connect with the institutes of national and international repute in the areas of Food Processing and allied fields. In this process till date NIFTEM has signed 15 MoU's out of which five are with international and nine are with national institutions.

The details are below:

National/Domestic Universities

1. Indian Agricultural Research Institute (IARI), Delhi

- 2. National Dairy Research Institute (NDRI), Karnal
- 3. GS1 India, New Delhi
- 4. Central Food Technological Research Institute (CFTRI), Mysore
- 5. NITIE Mumbai
- 6. Defence Food Research Laboratory (DFRL), Mysore
- 7. Indian Institute of Technology (IIT), Delhi
- 8. Indian Institute of Management (IIM), Lucknow
- o. Aachi Masala Food Private Limited
- 10. Mysore Food

international / Foreign Universities

- 1. Institute for Food Safety and Health Illinois Institute of Technology (IFSH), Chicago
- 2. University of Nebraska-Lincoln, **USA**
- 3. Kansas State University (KSU),
- 4. University of Saskatchewan, Canada
- 5. Wageningen University, The Netherlands

Growth in the level of processing and value addition of primary agriculture produce is of critical importance for enhancing farmers' income, generating employment, and to accomplish overall growth of the national economy. R&D is something where our country has been badly ineffective. How does NIFTEM give importance to these aspects and how does it plan to take the country towards a higher pedestal in the food processing sector?

As far as research is concerned, we are at a very preliminary stage in our country. Research, say for product development, you have hundreds



of varieties of cheese in France or in US and maybe in Netherlands but we have only one variety of cottage cheese that we know. When we produce so much of milk of different varieties, like cow milk, buffalo milk etc., why can't we do research and produce many more variety of cheese? That was just one example I gave. So product development research is at a very nascent stage where NIFTEM has made lot of plans. We have started 14 laboratories here, which are already established with the best possible equipments in the world. They will do research in product development. They will do research in technology development, they will do research in process development. They will also do research in the frontier areas like nutraceuticals, use of nano technology in nutraceuticals. How do you fortify foods by use of nano technology? So these things are huge areas of research which the industry needs. And which NIFTEM will be fulfilling in future.

Outreach programme includes the scientific knowledge which we have now in our country, as well as what we are getting from our knowledge partners and different universities all over the world. We need to disseminate scientific knowledge to the progressive farmers and to prospective entrepreneurs also. That is also a huge outreach program that NIFTEM is running, so that a person



who wants to establish a food processing industry, whether it is small or big, has full knowledge of the scientific facts. He starts with that so that he can plan things in the right perspective and the rate of success will be better.

How do you plan to train the rural youths which comprises a big mass and can be utilised through skill development towards increasing industrial efficiency and productivity?

NIFTEM has carved out a unique concept of 'Village Adoption Programme' as a project for its students with an aim to sensitise and educate the rural youth at the grass root level. This would also help the Indian food processing sector in accomplishing all-inclusive growth and integrating the underprivileged sections with the main stream economy. We started this in 2012 as a compulsory credit course for B.Tech & M.Tech students. Till now we have adopted 39 villages across 19 states in the country.

NIFTEM's 'Village Adoption Programme' team engages rural youth through imparting training on basic food production process and value addition techniques for enhancement of shelf-life, etc., and encouraging them to become entrepreneurs and establish micro and small food processing enterprises and units. We also provide vocational training for

uplifting livelihood resources along with vital linkages, micro credits and government policies to the youth.

As the founding Vice Chancellor of this institution, what you see as the key achievements and where would you like to place NIFTEM in the next few years?

NIFTEM believes in inculcating he value of real Indian rural scenario by providing first hand information to the students. They are given inside view of villages, farmers and traditional food processing practices at the grass root level. These students further help the villages and farmers in uplifting them to mainstream level.

It is estimated that NIFTEM will produce approximately 1,000 students and entrepreneurs, incubate about 250 businesses, undertake 300 research projects, 550 short term courses and 450 projects related to food standards setting and testing

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and will have about 12000 annual subscriptions for its journals by 2017. In addition, industry will benefit through Continuing Education initiatives and access to patents that are generated within NIFTEM

We should also reach out to the farmers in our country. The farmers need to be told about very cost effective measures to improve the shelf life of their produce. You would be knowing nearly 92,000 crore worth of produce gets wasted in our country every year. It is a huge loss to the farmers. We would like NIFTEM to go across to the farmers and tell

them how to preserve their produce, how to add value, or convert it into some form which would have a better and longer shelf life, so that they don't lose that much and their income improves.

Last of all, after being a career bureaucrat for so long, how did you plan shifting to academics and take up this task of settling up a world-class institute like NIFTEM?

I spent more than 30 years as an IAS officer and I did a lot and I am satisfied with my tenure. I took VRS and shifted to academics, which has been my first-love. I did my Masters in Physics in 1972, did another Masters in Environmental Sciences in 2001, and then I finished my PhD with IIT Delhi. So, I have been in academics, and the best part is, even during my postings as a bureaucrat, I have been doing lecture circuits all over the country, lecturing mainly about environmental conservation issues in colleges and schools and somehow I loved that much more than even my job.

I was looking for an opportunity where you can really bring those changes which we have in mind in the academic world. For example, this village adoption programme as a part of the academic program was one thing that was close to my heart. The student, who becomes a B.Tech or M.Tech must know what India is, must know what villages are, must know what farmers are, how they toil. And the unfortunate part is 90 per cent of the students of our country who come out of schools and colleges, do not know what the villages are, unless and until the student himself is from the village. The country doesn't develop unless you develop the villages. So it was my dream to, somehow get into something which will give me an opportunity to try to do something basic, where I can shape the future generations of the country. [