





Two Days Online Workshop On

"Solar Energy in Food Processing Industries"



Date: (Jan. 21-22, 2021)

Jointly Organized by

National Institute of Food Technology Entrepreneurship and Management, Kundli, Sonipat- 131028

&

National Institute of Solar Energy, Gwal Pahari, Gurugram - 122003

#### **About NIFTEM**

National Institute of Food Technology Entrepreneurship and Management (NIFTEM) was conceptualized by Government of India on persistent demand of the food industry to have an apex body as a 'One Stop Solution Provider' for the various problems of the sector. Ministry of Food Processing Industries (MoFPI), Government of India has set up this institute with an initial investment of INR 500 crore (US \$100 million). The institute is spread over an area of 100 acres. The institute intends to act as a center of excellence and an apex world-class center of global standards in the area of food technology and management. In addition to B. Tech the Institute offers M. Tech. MBA. Ph.D. programs. The institute is located on G.T. Road Kundli at a distance of 25 Km. from I.S.B.T., Delhi.

### **About NISE**

National Institute of Solar Energy (NISE), an autonomous institution of Ministry of New and Renewable (MNRE), is the apex National R&D institution in the field Solar Energy. NISE assist the Ministry in implementing the National Solar Mission and to coordinate research, technology and other related works. The institute is involved in demonstration, standardization, interactive research, training and testing solar technologies and systems. It is an effective interface between the Government and institutions, industry & user organizations for development, promotion and widespread utilization of solar energy in the country. NISE is located on Gurugram-Faridabad road, about 8 km from central Gurugram and about 25 km from India Gate.

# **Background**

Solar energy is radiant light and heat from the Sun that is harnessed using technologies such as solar heating, photovoltaics, solar thermal energy, solar architecture, molten salt power plants and artificial photosynthesis. The International Energy Agency said that "the development of affordable, inexhaustible and clean solar energy technologies will have huge longer-term benefits. It will increase countries' energy security through reliance on an indigenous, inexhaustible, and mostly import-independent resource, enhance sustainability, reduce pollution, lower the costs of mitigating global warming, and keep fossil fuel prices lower than otherwise.

# **Objectives of the Workshop**

Increasing population and high cost of fuels have created opportunities for using alternate energies for post-harvest processing of foods. Solar food processing is an emerging technology that provides good quality foods at low or no additional fuel costs. A number of solar dryers, collectors and concentrators are currently being used for various steps in food processing and value addition. Upon successful completion of this workshop, participants will be able to visualize the technologies and advancement in solar energy implementation in food processing and allied sectors.

# Contents of the Workshop

- 1. Solar Photovoltaic Technology
- 2. Solar Thermal Collectors
- 3. Solar Dryers
- 4. Solar Water Heaters
- 5. Solar Cooling & Heating

## **About the Department**

The department of Food Engineering at NIFTEM is one of the five constituent departments. The main objective of the department is to develop technologies and create human resource, in order to cater the needs of the rapidly growing Food Processing Sector. The department is currently offering M.Tech and Ph.D. programs exclusively apart from various courses in B. Tech (FTM). Department is having several ongoing research/consultancy projects especially in the area of novel food processing. The department aims to serve the requisite need of manpower for the food processing sector of the country.

### **Research Areas of the Department**

Fruits & Vegetable Processing, High Pressure Processing Food Drying, Applications of 3D Printing, CAD/CAM and Sensors in Food Industry, Operational Design & Development, Agri-Food Supply Chain, Novel Food Processing.

# Who can attend the Workshop?

- Faculty, Staff & Ph.D./M.Tech./B.Tech. Students of NIFTEM.
- The Faculty & Staff of UGC/AICTE approved Institutions.
- Participants from the Industry

## **Registration Fee**

The program is interdisciplinary and is open to faculty, Industry participants, Ph.D. scholars and students The participants need to pay INR 200 through SBI- i-collect The seats are limited and preference will be given on first-come, first-serve basis. It is mandatory to attend all the sessions for those who have registered to get a Certificate of completion.

#### **For Registration**

Participants need to register online through Google form by clicking at the

https://forms.gle/u31fGqZc5WT1DbSj9

#### **Chief Patron**

**Prof.** (Dr.) Chindi Vasudevappa Vice-Chancellor, NIFTEM

#### **Chief Guest**

**Dr. Arun K. Tripathi**Director General, NISE

# **Programme Chairs**

Dr. Anupama Singh
Professor & HoD, DF.E., NIFTEM
Dr. P.K. Nema
Dean (R) & Professor, DF.E., NIFTEM

### **Coordinators (NISE)**

Dr. Vikrant Sharma, Deputy Director, NISE

Er. Kishore Menon, Deputy Director, NISE

Er. Vikrant Yadav, Asst. Director, NISE

Er. Yogendra Singh, Asst. Director, NISE

#### **Coordinators (NIFTEM)**

Dr. Vinkel Kumar Arora, Asst. Prof, DFE

Dr. Rahul S Mor, Asst. Prof, DFE

Er. Vijay S. Sharanagat, Asst. Prof, DFE

Er. Kumar Rahul, Incharge IT, NIFTEM

Er. Narender Sinhmar, Lab Incharge, DFE

# **Organizing Committee**

Dr. Barjnder P Kaur, Asst. Prof, DFE

Er. S. Thangalakshmi, Asst. Prof, DFE

Er. Nitin Kumar, Asst. Prof, DFE

Er. Anand Kishore, Asst. Prof, DFE

Er. Arun Sharma, Asst. Prof, DFE

## **Workshop Speakers**

Eminent speakers from academia & industry working in the field of solar thermal or solar photovoltaic applications have been invited.

- Mr. Mike Humphreys, Founder & CEO,Apricus Eco-Energy, Australia
- Mr. Jaideep N. Malviya, Expert –Solar Thermal, Solar Payback
- \* Er. Vikrant Yadav, Asst. Director, NISE
- \* Er. Anish Malan, Asst. Director, NISE
- \* Dr. P.K Nema, Professor, DFE, NIFTEM
- Dr. Pushpendra Singh, Associate Professor,
   Mechanical Engg. Deptt., DTU
- Dr. Anil Kumar Berwal, Professor & Head,
   Dept of Energy Studies, DCRUS&T
- Dr. N. S Rathore, Hon'ble Vice Chancellor,MPUAT, Udaipur

# **General Information**

- The participants can register online by clicking the link: <a href="https://forms.gle/u31fGqZc5WT1DbSj9">https://forms.gle/u31fGqZc5WT1DbSj9</a>
- The last date of registration is 20.01.2021.
- Reporting/Inauguration: 21.01.2021 at 10 AM.
- Valedictory: 22.01.2021 at 6 PM.
- The online link to join the sessions will be shared to registered participants only
- For any inquiry regarding this Workshop, please email at **coordinator.dfe@gmail.com**