



31st National Convention of Agricultural Engineers

on

Engineering Interventions in Doubling the Income of Small and Marginal Farmers by 2022

February 2-3, 2018

New Delhi

Organised by

The Institution of Engineers (India)
DELHI STATE CENTRE

Under the aegis of:

Agricultural Engineering Division Board - IEI



About The Institution of Engineers (India)

98 Years of Relentless Journey towards Engineering Advancement for Nation-building.

The Institution of Engineers (India) or IEI is the largest multidisciplinary professional body that encompasses 15 engineering disciplines and gives engineers a global platform from which to share professional interest. IEI has membership strength of more than 0.7 million. Established in 1920, with its headquarters at 8, Gokhale Road, Kolkata-700020, IEI has served the engineering fraternity for over nine decades. In this period of time it has been inextricably linked with the history of modern-day engineering.

In 1935, IEI was incorporated by Royal Charter and remains the only professional body in India to be accorded this honour. Today, its quest for professional excellence has given it a place of pride in almost every prestigious and relevant organization across the globe. IEI functions among professional engineers, academicians and research workers. It provides a vast array of technical, professional and supporting services to the Government, Industries, Academia and the Engineering fraternity, operating from more than 100 centres located across the country. The Institution has established R&D centres at various locations in the country and also provides grant-in-aid to its members to conduct research and development on engineering subjects.

IEI Conducts Section A & B Examinations in different Engineering disciplines, the successful completion of which is recognized as equivalent to Degree in appropriate field of Engineering of recognized Universities of India by the Ministry of Human Resources Development, Govt. of India. Every year as many as 90,000 candidates appear for these exams. For details, please see : www.ieindia.org.

Preamble

Agriculture plays a vital role in Indian economy. 54% of country's population is engaged in agriculture & allied field activities (as per census 2011), and it contributes 17% to our country's gross value added.

Total geographical area of country is 328.7 million hectares, out of which 141.4 million hectares is the reported net shown area & 200.9 million hectares is the gross cropped area with cropping intensity of 142 %. Net shown area works out to be 43% of the total geographical area. The net irrigated area is 1568.2 million hectares.

The population of India is at present 128 crores & it is the test of farmers to feed this population. Food is the basic requirement to any country. In most of the food crops, yield patterns is not increasing with respect to population growth. Though there is mark improvement in allied sectors such as poultry, piggery, fish & vegetables & fruits. Hence, there is scope to improve the production of all agricultural products by adopting the improved agricultural implements, irrigation practices, soil health programme, storage, processing & handling of all agricultural products.

Total food production in the country is estimated at 252.22 million tonnes and production of pulses at 16.47 million tonnes, which are showing downward trend. Production of oilseeds in the country is at 25.30 million tonnes, production of sugarcane is estimated to be 352.16 million tonnes & cotton

production is estimated at 30.15 million bales (of 170 kg. each), production of jute & mesta is estimated 10.47 million bales (of 180 kg. each).

However with increasing population it is necessary to increase productivity. Agri-Engineering plays an important role in providing tools and implements and the knowledge for improving productivity. This convention will therefore cover engineering applications in various sub sectors of agricultural production that will cumulatively improve productivity and doubling Agriculture income by 2022, and support national target.

Objective

31st National Convention is aimed to provide a platform for engineers, entrepreneurs, social scientists and all concerned to discuss the available engineering technologies and suggest strategies to implement them for enhancing the income of small farmers.

Topics for discussions would cover potential engineering technologies in all sectors including :

- Crops
- Livestock
- Fisheries
- Horticulture
- Post Harvest Management
- Entrepreneurial Models etc.

Theme

Engineering Interventions in Doubling the Income of Small and Marginal Farmers by 2022.

Sub-themes

1. **Natural resources engineering and management :**
 - a. Irrigation, drainage, water management, soil conservation practices, watershed management practices, rainwater harvesting, conservation, ground water recharge & reutilization, waste used water utilization in agriculture by recycling etc.
 - b. Pressurized irrigation systems, precision farming and hi-tech commercial agriculture/ horticulture etc.
 - c. Resource conservation and technologies management in agriculture.
 - d. Automation in irrigation systems/projects.
2. **Power and machinery engineering systems :**
 - a. Mechanization of horticultural crops/green houses/ protected cultivation
 - b. Equipment for resources conservation technology
 - c. Machinery management system for precision agriculture
 - d. Use of mechatronics for agri-machinery development
3. **Food process engineering technology :**
 - a. Post harvest management like agriculture food processing, value addition, diary, fisheries, horticulture product processing, cold chain, farm produce etc

- b. New innovative preservation/storage & marketing techniques for small and marginal farmers for agricultural produces etc.
- c. Solar powered machines & gadgets for processing, storage of agricultural produce etc
- d. Use of solar/wind energy & management in agriculture.
- e. Innovations in non-conventional sources of energy.
- f. Engineering interventions in animal science and fisheries sectors for agricultural use.

4. **Agricultural automations :**

- a. Machine, vision robotics application and use in agriculture sectors etc.
- b. Use of sensors for agricultural operations.
- c. E-argil., agro electronics, computerized decision support aids.
- d. Artificial intelligence, intelligent agril. system.

Date and Venue

February 2-3, 2018

"Engineers Bhawan", 2 - Bahadurshah Zafar Marg, New Delhi-110002

About the Organizer

The Institution of Engineers (India), Delhi State Centre (www.ieindia.org)

The Institution of Engineers (India) has more than one million members in 15 engineering disciplines in 114 centers or chapters in India and 5 in overseas; it is the world's largest multi-disciplinary engineering professional society in engineering and technology world. IEI was established in 1920 in Madras with Sir Thomas R. J. Ward as the founding president. In 1935, IEI obtained the Royal Charter of Incorporation from King George V 'to promote and advance the science, practice and business of engineering'. The Institution of Engineers (India) is acclaimed to have pioneered non-formal education in engineering.

Delhi State Centre has a history of nearly 90 years. Located at ITO, it is a landmark in the city of Delhi. It has played a crucial role in uniting various professional societies' right from its inception. Delhi State Centre has organized various successful activities which include International and National Conferences, Indian Engineering Congress, All India Seminars, Round Table Conferences and Workshops relating to different strategy of engineering and having crucial impact on society.

Participants

Members of Agriculture Engineering Division of IEI, Senior Level Officers from Govt. Departments & Research Institutes, PSUs and related agencies, involved in policy & decision making, Researchers/Academics, NGOs & Students in general are expected to be the participants and would be benefitted from the presentations to be made by the experts in the field.

Participation Fees

| Categories* | Registration Fees (in Rs) |
|--|--|
| Consultancy Firms/ Industrial Delegates | Rs. 5000/- + Taxes as Applicable |
| Govt. Officers/NGOs/ Research Institutes | Rs. 4000/- + Taxes as Applicable |
| Corporate Members of IEI | Rs. 3000/- + Taxes Taxes as Applicable |
| Students/ Research Scholar | Rs. 1500/- + Taxes as Applicable |

- Early Bird Discount @ 10 % for registration before November 30, 2017.
- 10% Discount for Registration of three or more delegates from an Unit.

Call for the Papers/ Presentations

There will be numbers of papers of high standard from eminent persons from the field by invitation as well as own submission. These paper preferably be submitted as per the guideline of IEI through e-mail at ieidscl@gmail.com & delhisc@ieindia.org along with presentation in Powerpoint as per the following timelines :

| Sr. No. | Activity | Last date of submission/ confirmation |
|---------|--------------------------|---------------------------------------|
| 1 | Submission of Abstract | 15.11.2017 |
| 2 | Confirmation to Author | 30.11.2017 |
| 3 | Submission of Full paper | 15.12.2017 |
| 4 | Allocation of Slot | 15.01.2018 |

Sponsorship/Partnership

| Sponsorship | Fee | Privileges |
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| Gold | Rs. 1,00,000 | Complimentary: 6 Delegates, One Inner Colour Full Page Advertisement and Display of Logo & Name in Souvenir & Backdrop of Convention |
| Silver | Rs. 5,0000 | Complimentary: 3 Delegates, One Inner B/W Full Page Advertisement and Display of Logo & Name in Souvenir & Backdrop of Convention |

The sponsor may support the event lunch/dinner/kit and display products/leaflets/books/study material etc.

Advertisement on Souvenir

On this occasion, it is proposed to bring out a souvenir with abstract/full text of selected papers and subject related articles. In this regard, we will gratefully appreciate, if you could place an advertisement in the souvenir. The Tariff for the COLOUR advertisement are as follows:

| | |
|-----------------|--------------------------------------|
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Payments

Payments for delegate Fees, Advertisement & Sponsorship will be accepted through NEFT/RTGS/ Online transfer/Bank Draft/Banker's Cheque to be made in favour of "The Institution of Engineers (India) A/c. 31st NCAE payable at New Delhi. Bank Account No. 3183473760, Central Bank of India, Press Area, New Delhi, Bank Branch (MICR) Code : 110016021, IFSC Code: CBIN0280306, PAN No. : AAATT3439Q.

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