

**Precision Farming**, as the name implies, refers to the application of precise and correct amounts of inputs like water, fertilizers, pesticides, nutrients etc. at the correct time to the crop for increasing its productivity and maximizing its yields. Also providing the information for further analysis and future use.

The Internet of Things (IoT) based precision farming is no longer a vague futuristic vision. IoT devices already populate a wide variety of applications today for the Precision Farming. Ranging from the individual sensors for Soil Moisture & Nutrients, to SMART Irrigation, to SMART Power Management, to Disease Prediction / Control – IoT based systems have been helping to improve the farm productivity substantially.

# Agri-Tech Inclusion: Bringing Agri-Engineering to Mainstream Platform

The Premier Program for  
Agri-Tech Professionals

as part of

**ITC 2017**  
Industry 4.0

Engineering the Interface with Real World

10 - 11 August 2017

NIMHANS, Bengaluru, India

[www.techcongress.net/agri-tech](http://www.techcongress.net/agri-tech)

## Organised By



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There are constant developments & technology innovation happening in IoT that can be leveraged for the varied applications within Precision farming. Many avenues are open for the implementation for Horticulture, Rain-fed, Controlled Environment (Green house/ Poly-house), Field Crops & Special Crops etc across the agri-domains. Connected Agri-Life Science, through Deep Learning and AI / IR / VR based prediction & control for Plant Disease & Pest/Insect Attack.

India is characterized by small farms. More than 80% of total land holdings in the country are less than 2 ha (5 acres). Most crops are rain fed, with only about 45% of the land irrigated. According to some estimates, around 55% of total population of India depends on farming verses only 2% in the US because of Agri-Mechanization. Poor availability of funds, wrong choices for farm inputs, unstable price structure & support for the produce, hurdles in farm insurance, and so on; due to which most of the farming is non-remunerative and large no. of the farmers in India are in debt. This is also the main reason for a large number of farmer suicides.

Also without mechanization, in today's society, farming is hard, back-breaking work. This has resulted in most farmers' children choosing alternate professions. Apparently, farmers get more money in selling their land than they would from farming. Therefore, it is imperative to increase farm productivity so that the shrinking farmlands can feed the billion plus people of India in the future. There is a crying need for excellence in Agri-Tech deployments, engineering innovations & research for mechanization. To design simpler and effective machinery like robots, drones and other process automation of farming practices.

Contemplating Connected Farming Systems, with the end-to-end process automation in mind using the Information and Communications Technology (ICT) is no longer a dream. Coupled with the Deep Learning Platforms and IoT based Connected Systems of Systems, which can help in providing near-accurate information for decision making right from sowing to monetization. Online Connected Market Place for Demand Based Inputs as well as demand based harvesting.

Further, the technology assisted farming-as-an-enterprise approach, can help build a sustainable and commercially feasible agriculture. The need of the hour is to bring in these technologies Innovation for mass-adoption and leveraging the various market-place agri-portal and mobile platforms for the better use of Agri-Tech in India.

### Focused Areas for Agri-Tech Workshop

1. Contemporary IoT Technologies for Sustainable Farming
2. Precision Farming : Future of Agriculture
3. Connected Farm Systems : End-to-End Assisted Farming
4. Online Connected Market Place : Market-2-Farm & Farm-2-Market
5. Advances in Agri Mechanization & Labor Productivity

### Why you should join?

1. Deliberate on the latest technologies with Experts. Prepare the ground for scholarly work.
2. Enhance the knowledge of Latest Industry Relevant Skills, not part of the syllabus as yet.
3. Bring-up the topics R&D discussion for sign joint MoU with Industry, Experts and Foreign Institutes.
4. Get some of the Start-up to join your efforts for joint student projects.
5. Research scholars to get their papers published through this International Conference.

# Core Team Envisaged for Agri-Tech @ ITC 2017

**Dr. K. Alagusundaram**  
Deputy Director General, ICAR

**Shri. D.V. Nagabhushan**  
Council Member - The Institution of Engineers (India)

**Dr. Man Singh**  
Professor, Water Technology Centre  
Indian Agricultural Research Institute (IARI)

**Mr. Ram Kiran Dhulipala**  
Head - Digital Agriculture, ICRISAT

**Dr. D. Prasanna**  
Founder & CEO, Way2Agribusiness India Pvt. Ltd.

**Dr. Yogesh Chandra Bhatt**  
Chairman, University Sports Board,  
Maharana Pratap University of  
Agriculture and Technology

**Mr. Ravikishor Mundada**  
NASSCOM Agri-Tech  
Co-Convener Agri-Tech@ITC 2017

**Mr. Ashok Meda**  
Agri Finance Advisor & Investor  
Co-Convener Agri-Tech@ITC 2017

**Dr. L.V. Muralikrishna Reddy**  
Past President, The Institution of Engineers (India)

**Padmashri. Prof. R.M. Vasagam**  
Council Member, The Institution of Engineers (India)

## About ITC-2017

**Indian Technology Congress** offers a unique International Knowledge Exchange platform for India's Business Research and Academic Leaders to collaborate with Policy-makers and the Government by building an environment that promotes engineering innovation. Creating an atmosphere for brainstorming the latest technology trends and its adoption for industrial excellence through the proceedings of ITC 2017.

The 5th consecutive annual edition of **Indian Technology Congress** much coveted & appreciated by one and all - the Industry Leaders, Top Academicians, Defense & Government establishment, Startups, Investors, Research Groups, MSME as well as Public Sector Organizations. By participation in ITC, organizations and decision makers have significantly enhanced their perspective by comfortable knowledge sharing, getting an in-depth insight into the latest technology trends, its adoption and applying the same for their respective industry solutions.

Government's initiatives such as '**Make in India,**' '**Digital India,**' '**Infrastructure Modernization**' & others have been embedded in the program by design in ITC-2017. The emphasis laid on the future of Industrial Engineering Technologies in India and elsewhere. IoT (Internet of Things) with advances in Hardware & Software becoming the prime drivers of fourth industrial revolution - The '**Industry 4.0**' is here to experience in a real sense at ITC-2017.

With the addition of Agri-Tech as part of this prestigious forum, we bring up the Agri-Engineering & Technologies to the fore-front for collaboration and co-operation with the main stream Indian Engineering professionals, academics and policy makers. With the focus on adopting latest IoT based and other latest technology innovations for the benefit of agriculture, we have enhanced the program contents for Agriculture Engineering, Input Supplier enterprises, Agri-Startups, Investors and Agri-research institutes to facilitate the knowledge exchange. Thought papers and panel discussions presenting the ideas for implementation of agri-tech programs. Running as a parallel track for this 2 day event cutting across the stakeholders in Indian Agri-Eco System.

*Future of Industrial IoT (IIoT)*

*Challenges & Opportunities of Industry 4.0*

*Manufacturing Simulation (AR, VR, AI)*

*Contemporary Technologies for a Sustainable Future*

*Technologies Adoption for Industrial Sector*

*Innovative Technologies for Industrial Applications*

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## Objectives of the "Agri-Tech" @ ITC 2017:

### Build the connecting Bridge

Latest engineering and technology Industry happening to be shared with the Agri Engineering Stakeholders - Colleges/ Univ, Farm Equipment companies, Funding Institutions, Research Organizations & Startups. Thus effectively provide a national platform for the collaboration by thought leaders and champions in the Agri Sector.

### Agri-Tech Inclusion

The next revolution is happening; Bring in the respective stakeholders within Indian Agriculture - Policy Makers, Agri-Engg colleges/ Universities, ICRISAT, IARI, ICAR, NASSCOM, NGO, FPO & Farming Communities to the main stream of Industry 4.0.

### Agri-Tech Innovation

Provide a Space for the Early Adopters of IoT in Agri-tech as part of this event, to ensure the propagation of technology and collaboration. Participants also get the rare opportunity to get their hands on happening in the Industry 4.0 & IoT and can think of the innovations by combining those ideas with Farming.

### Experiential Learning

Ongoing DEMO and Workshops by Startups & Enterprises will provide the the experiential learning through practical exhibits and working prototypes.