

# 9th International Micro irrigation Conference

16-18 January\*, 2019

Aurangabad, India



MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT  
& GANGA REJUVENATION & MINISTRY OF AGRICULTURE  
(Govt. of India)

## 9<sup>TH</sup> INTERNATIONAL MICRO IRRIGATION CONFERENCE (9IMIC)

ON

**“Micro Irrigation in Modern Agriculture”**

16-18 January\*, 2019

*Study & Cultural Tours on 19<sup>th</sup> & 20<sup>th</sup> January, 2019*

Aurangabad, Maharashtra, India

Organised by

Indian National Committee on Surface Water (INCSW)



ICID•CIID



Central Water Commission (CWC)





***“If agriculture sector shines, the purchasing power in our villages will increase & this will further India's economic growth”***

Narendra Modi  
Hon'ble Prime Minister of India

## INVITATION



On behalf of Indian National Committee on Surface Water (INCSW), it is my great pleasure to invite you to the 9<sup>th</sup> International Micro Irrigation Conference (9IMIC) to be held from 16-18 January 2018 in Aurangabad, India. The theme of international conference is '**Micro Irrigation in Modern Agriculture**'.

Aurangabad is a city in Maharashtra State popularly known for the 17<sup>th</sup> century marble structure 'Bibi ka Maqbara' styled on the Taj Mahal. The city is surrounded by many historical monuments including Ajanta and Ellora Caves, which are also Unesco World Heritage Sites. Visiting Aurangabad to attend the conference will also provide you a unique opportunity to put yourself amidst the city's rich culture and heritage.

On behalf of Indian INCSW, It gives me great pleasure to invite you to be the part of the international conference, which provides an opportunity to present interesting developments in the field of agriculture. I am sure your participation in the conference will be very effective, as you will have, the opportunity to visit the exhibition and learn about some of the best practices related to micro-irrigation field in the World. The conference will also attract experts from India and around the world in various thematic sessions which will help in enriching the knowledge.

I am eagerly looking forward to seeing you in Aurangabad in January 2019.

**S. Masood Husain**  
**Chairman**  
**Indian National Committee on Surface Water (INCSW)**  
**Central Water Commission**

## INVITATION



The world's population is projected to reach 8.5 billion by 2030 and close to 10 billion by 2050. This will lead to a significant increase in demand for food and fibre as projections show that overall food production would have to be raised by some 70 percent towards 2050 while production in the developing countries would need to be almost doubled. Similarly, present global water demand is projected to increase by 55% with increased stiff competition among various sectors. So major challenge would be to produce more with less water in a sustainable manner taking into account impacts of climate change and variability. As water stress spreads around the globe, finding ways of getting more crop per drop to meet our food needs is among the most urgent of challenges. The first answer to this call is micro irrigation, which delivers water directly to the roots of plants in just the right amounts. It can

double or triple water productivity – boosting crop per drop – and it appears to be taking off worldwide. Over the last thirty years, the area under micro irrigation methods have risen by more than 1000%, to 16.5 million hectares at present.

Since both land and water resources are finite resources, increased agricultural production to meet the requirement of the increasing population will have to come from the same limited net sown area by increasing productivity with an optimal use of available water and land resources. Micro irrigation (drip / trickle or localized irrigation), which was introduced on commercial scale in the world sometime in the seventies, has emerged as one of the key interventions for water saving and for improving crop productivity with reduced labour input leading to increased farmer's income.

With a view to share experiences in the use of new technologies and best management practices in drip, micro-sprinkler, and other localized irrigation systems I, on behalf of the International Commission on Irrigation & Drainage (ICID) and host Indian National Committee on Surface Water (INCSW), invite you to the 9<sup>th</sup> International Micro Irrigation Conference of ICID to be held from 16-18 January 2019 in Aurangabad, India. The Theme of the International Conference is “**Micro Irrigation in Modern Agriculture**”.

I am confident that your presence at the 9<sup>th</sup> International Micro Irrigation Conference will not only be technically rewarding but also provide you an opportunity to closely interact with several hundred delegates working in this area as well as enjoying the rich historic culture of the city of Aurangabad.

I look forward to welcoming you at Aurangabad.

A handwritten signature in black ink, appearing to read 'F. Reinders'.

**Eng. Felix Reinders**  
**President**  
**International Commission on Irrigation & Drainage (ICID)**

## BACKGROUND

The world's population is predicted to reach 9.1 billion by 2050 out of which about 6.3 billion are projected to live in urban areas. Growing population will lead to significant increase in demand for food and fibre and a projection show that overall food production would require to be raised by some 70 percent between 2005/07 and 2050 while production in the developing countries would need to almost double. Similarly, present global water demand is projected to increase by 55% with increased competition among various sectors.

The share of water in agriculture is expected to reduce from present due to stiff competition from other sectors like industry, domestic, energy, environment etc. So major challenge would be to produce more with less water in a sustainable manner taking into account impacts of climate change and variability.

New farming techniques, crop genetics and new and improved water efficient irrigation technologies will be the key strategies to enhance agricultural productivity for achieving food security for the human population. Conserving and enhancing the capacity of land and other natural resources along with technologies that conserve and use water efficiently would play a significant role to sustain agriculture and in achieving food security.

Micro irrigation (MI) technologies of drip and sprinkler irrigation systems have emerged as one of the key interventions for water saving and for improving crop productivity. Micro-irrigation technologies have shown improvements in yield, reduction in labor requirement, improvement in output quality, etc. Evidence shows that up to 40% to 80% of water can be saved and water use efficiency can be enhanced up to 100% in a properly designed and managed MI system compared to 30-40% under conventional practice.

In an effort to raise awareness, conserve and use water resources in an integrated manner, the 9<sup>th</sup> IMIC is a platform for congregation of local, regional, national and global ideas and opinion from decision makers, politicians, researchers and entrepreneurs in the field of Water Resources.

## 9<sup>th</sup> INTERNATIONAL MICRO IRRIGATION CONFERENCE

In order to promote the use of micro irrigation on large-scale, ICID launched the hosting of international Micro Irrigation Congress commencing from the year 1971 by its member countries. The 8<sup>th</sup> MIC was held in 2011 in Tehran, Iran. India proposes to hold the 9<sup>th</sup> Micro Irrigation Conference from 16-18 Jan, 2019 in Aurangabad, Maharashtra.

**9<sup>th</sup> International Micro Irrigation Conference 2019** will form a forum where the Indian National Committee which is a part of the Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India will generate opportunity for discussions and deliberates strategizes with eminent stakeholders through seminars, exhibitions and sessions to build public awareness for use of micro irrigation on large-scale and to get support to implement key strategies for conservation, preservation, Inter sectoral arrangements, advanced crop technology, precision engineering techniques etc.

## THEME AND SUB-THEMES

The event is proposed not to be India centric but aims to address the problems of developing as well as developed world in the context of present day challenges. Different regions of the world are at different levels of endowment and development of water resources. A special feature of the event will be a host of special side events managed by international organizations and professional societies and bodies. The other highlight will be special supporting events in the related topics or Country specific or Crop specific or Technology Specific theme.

The event will be a multi-disciplinary dialogue in the form of a conference discussing issues related to the theme. 9<sup>th</sup> Micro Irrigation Conference will focus on the theme of “**Micro irrigation for Modern Agriculture.**” Following are the sub-themes under the theme:

### **Subtheme 1: Micro Irrigation Design, Innovations, and New Techniques**

- Technical details, arrangements, success/ failure stories
- Industry Studies, New Technology, Accessible Technology & Products
- Fertigation
- Solar Power Integration

### **Subtheme 2: Financing of Micro-irrigation**

- Innovative financing
- Micro irrigation Fund

### **Subtheme 3: Micro Irrigation for Small Farm Holders**

- Productivity, Surface Water linking, Energy Efficiency
- Reclaimed water, urban irrigation, Sustainability, long term solutions
- Social up-liftment, innovative management and impact on women

### **Subtheme 4: O&M Services and Capacity Development for the Micro Irrigation Systems**

- Techniques, Problems, solutions, Participatory Approach
- Capacity development of farmers and service providers
- Skill Development

## TARGET PARTICIPANTS

Event will be targeted to a wide range of participants including policy makers, manufacturer of various industries (irrigation, agriculture, construction etc.), Engineering companies, Trade organisations (retail, wholesale, import/export), government departments, trade associations, research institutes, universities, academicians and other public organisations.

## PAPER SUBMISSION PROCESS

The paper presentation will have to fall under the purview of any one of the topics within the sub-themes specified for the conference. **Important Dates** for the submission and processing of paper are:

- 30 June 2018 – Last date for Synopsis submission
- 31 July 2018 – Communication on approved Synopsis
- 30 September 2018–Submission of Full length paper
- 31 October 2018 – Acceptance of Full length paper

The online procedure for paper submission shall be available on the event web site.

## HIGHLIGHTS OF THE EVENT

The conference aims and plans to provide a global platform for professionals and exhibitors by showcasing knowledge and technologies from the world over and providing business to business opportunities to the water resources communities. Following high level concurrent events are also proposed:

- Irrigation Minister's Roundtable
- Farmer's Pavilion & NGO session
- Sponsors Workshops on Specific Crops
- Workshop on specific Agro Climatic Zone
- Micro Irrigation Awards to Farmer, practitioner, Company, Government

The event will showcase various programmes that include:

- i. **Conference:** 3 days of action packed exchange of ideas on Policy for the Development of the Micro Irrigation in Modern Agriculture for Sustainable Water, Food & Agriculture
- ii. **Exhibition:** Core focus - 3 days industry sponsored technology-based exhibition of products depicting latest technology for use of micro irrigation
- iii. **Supporting Events:** Focus on Women Participation, Rural Development and Farmers Participation, Crop/Technology/ Country Specific events
- iv. **Cultural Tour(s):** Full day Cultural Tour after 3 days to focus on rich cultural heritage of India located in that area,
- v. **Study Tour(s):** Full day Study Tour after the conference to focus on one of the largest micro Irrigation system of India located in that area and visit to a factory.
- vi. **Accompanying Person:** Full 3 days engagements in local shopping cum cultural etc.
- vii. **Social Networking:** Other ICID National Committee's Program/ Dinner, Spouse Club, Cultural show/ Film Show

A large group of eminent international and national persons and local farmers shall be invited for sharing their experiences in the field of latest development in micro irrigation technology to enhance crop production and water management for optimal use in agriculture, technical and sociological interventions for sustainable water, food & agriculture.

## **EXHIBITION**

There will be an exhibition running in parallel supporting the theme and showcasing the technologies, latest development and solutions available for the areas of irrigation, latest development in micro irrigation technology to enhance crop production and water management for optimal use in agriculture. Active association of all water related organizations, companies, organizations will be able to promote products and services depicting latest Technology for use of micro irrigation to the world in general and India in particular:

- 100+ exhibitors are targeted
- 1000+ visitors are targeted which includes Students, Academician, Commercial Farmers, Business Visitors;
- 2, 000 sqm of show space;
- Regional pavilions targeted for: the Netherlands, France, German, Japan, Korean, USA, Israel, Hong Kong, Taiwan, Italy, Denmark, Water Environment Federation etc;
- National organizations targeted for Micro Irrigation equipment manufacturers, service providers and International organizations are targeted

### **Key Exhibition Sections:**

- Exhibition of products depicting latest Technology for use of micro irrigation
- Micro irrigation for Greenhouse technologies, Nurseries & Horticulture, Landscaping & Sports fields & High-Tech Irrigation Farm
- Pressurized irrigation network and expansion of Micro-Irrigation in irrigated agriculture
- Reused water for Irrigation & Energy saving for Irrigation
- Pumps, pipes, valves, machinery
- Water collection and utilization of flood water for Irrigation
- Technology and equipment for Soil treatment and agricultural practices

### **Advantages for Exhibitors:**

The exhibition will provide a unique networking opportunity to the exhibitors for displaying products and services to the practising water resource professionals from participating countries. Exhibitors will also have a unique opportunity to spread their network in this region and find new joint ventures and profit from the growing business in this emerging and technologically important area. Business firms will have the opportunity of direct interactions with thousands of potential clients, highly qualified visitors including decision makers, enormous PR and promotional opportunities, joint ventures, expanding their business in the rapidly growing Indian water market and to increase brand visibility/image.

## **Facilities Provided**

Free hosting of exhibitors' profiles and company website links on event web portal one delegate at concessional rate for this conference.

## **Exhibition Participation Fee**

- *Bare Space*- INR 10,000 (US\$154) per sqm
- *Shell Scheme*- INR 12,000 (US\$ 185) per sqm

Exhibitor desirous to take Bare space will have to make payment for minimum 27 sqm. The shell scheme minimum space will be 9 sqm (3mX3m) and multiple of 3m. The layout of exhibition plan will be uploaded on the website of the event.

## **PARTICIPATION IN CONFERENCE**

Delegates attending the conference as well as exhibitors can sign up/ register for both the conference and exhibition online (<http://www.incsw-cwc@nic.in>). Please note that expressing interest through registration is free of cost. However, participation in the conference is subject to clearing of dues.

Early registration fee incentive of Rs 1000/USD 100 is applicable up to September 15, 2018. The registration fee payable by the delegates including author of papers for the conference is as follows:

Country	Full Participation	Young Professional*	Retired Professional**	Accompanying Person
India	US\$ 200	US\$ 100	US\$ 100	US\$ 100
Foreign	US\$ 500	US\$ 250	US\$ 250	US\$ 200

\* Up to 40 years of age \*\* Beyond 62 years of age

All payments shall be in equivalent Indian Rupees. To avail the concession in the registration fee, age proof, retirement certificate has to be submitted to the Conference Secretariat.

The registration fee covers admission to all official functions, technical sessions, one set of pre-session papers, official lunch/dinner and tea in between sessions. The registration for accompanying persons will cover admission to all official lunches, dinners and cultural programme.

On the completion of the registration process, the delegates/exhibitors will be able to access the details, receive the latest announcements regarding submissions and acceptance of synopsis/papers, details of person registered, key note speakers, session-wise details, booking of exhibition space, transport and accommodation rate and guidance and facilities on other features of Micro Irrigation Conference.

## **Payment Method**

Demand draft/cheque is payable at New Delhi. Online payment facilities shall be provided on the event website shortly. (*To be announced shortly*)

## PROMOTIONAL FACILITIES

The Micro Irrigation Conference will provide excellent opportunities to national and international organizations, Central/State Government organizations, public sector undertakings, industrial organizations, equipment manufacturers, entrepreneurs, financial and funding institutions, consulting and construction organizations to publicize themselves by being Platinum/Golden/Silver sponsors or Supporter of the Conference. The sponsorship fees payable and benefits are mentioned below. Interested organizations may communicate their willingness to the conference Secretariat through registration.

### **SPONSORSHIP**

#### **PLATINUM SPONSOR : Rs. 10, 00,000 (US\$ 15385)**

Free registration for ten delegates with Company name and logo on conference web Page (linked to the company website) / promotion material like proceedings volume, banner/signage, stationary items etc. A Full-page advertisement in the post Session Proceedings. Time slot for technical presentation in the Special Sponsor session of the choice (except inaugural, plenary & valedictory sessions) Distribution of Literature/Brochures, counters.

#### **GOLDSPONSOR : Rs. 6,00,000 (US\$ 9231)**

Free registration for seven delegates Company name and logo on conference web Page (linked to the company website) / promotion material like proceedings volume, banner/signage, stationary items etc. A Full-page advertisement in the Post Session Proceedings Distribution of Literature/Brochures

#### **SILVER SPONSOR : Rs. 3,00,000 (US\$ 4615 )**

Free registration for five delegates Company name and logo on conference web Page (linked to the company website) / promotion material like proceedings volume, banner/signage, stationary items etc.

#### **SUPPORTER : Rs. 1,00,000 (US\$ 1538)**

Free registration for three delegates  
Company name and logo on conference proceedings volume

### **OTHER ADVERTISEMENT OPPORTUNITIES**

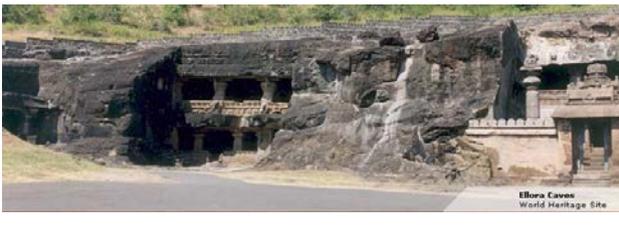
A limited space will be made available on first-come-first-served basis, for coloured advertisement to the organization involved in the concerned field, in the event website, lunch and dinner sites and post session proceedings. The event secretariat can be contacted for further details.

## VENUE AND TOURS

The conference will be organized in Aurangabad, India. Aurangabad is fifth largest city in the state of Maharashtra in India. The city is a tourism hub surrounded by many historical monuments including the Ajanta caves and Ellora caves which are World Heritage Sites. Aurangabad is a very historic city

and receives tourists & cultural explorers from all over the world. Annual mean temperatures in Aurangabad range from 17 to 33 °C with the most comfortable time to visit in winter- October to February. It is well connected by air and rail with all the major cities of India. It has a good number of hotels with adequate facilities to accommodate the participants during international conference.

Post conference **Study Tour** and **Cultural Tour** will be organised to following places during 19-20 January, 2019:

	
<p><i>Ajanta Caves</i></p>	<p><i>Ellora Caves</i></p>
	
<p><i>Gandhi Research Foundation</i></p>	<p><i>Jayakwadi Dam Bird Sanctuary</i></p>
	
<p><i>Jain Irrigation Factory</i></p>	<p><i>Farmer's Micro Irrigation Site</i></p>

**Local Tours** for accompanying person will also be organised to:

	
<p><i>Gul Mandi, Bibi ka Maqbara</i></p>	<p><i>Himroo National Textile Centre</i></p>

The details of the programs shall be available on the event web site. For details please log on to Maharashtra Tourism web site (<https://www.maharashtratourism.gov.in>).

## ORGANISERS

**ICID:** The **International Commission on Irrigation and Drainage (ICID)**, established in 1950 is a leading scientific, technical, international not-for-profit professional organization. The professional network consists of experts from across the world in the field of irrigation, drainage, flood management, and a wide spectrum of agriculture water management. The main mission is to promote 'Sustainable agriculture water management' to achieve 'Water secure world free of poverty and hunger through sustainable rural development'. ICID is a knowledge sharing platform dedicated to issues that covers the entire spectrum of agricultural water management practices ranging from rainfed agriculture to supplemental irrigation, land drainage, deficit irrigation to full irrigation, etc. In addition, drainage of agricultural lands forms the core theme of commission's activities.

**INCSW-CWC:** The **Indian National Committee on Surface Water (INCSW)** has been constituted by MoWR, RD & GR during the year 2013 with the objective of promoting & building national and international collaborations with water resources institutions and organisations. INCSW is currently an arm of **Central Water Commission (CWC)** and headed by Chairman CWC. It comprises of members representing Ministry of Water Resources (MoWR)/CWC, *Central Soil and Materials Research Station (CSMRS)*, *Central Water and Power Research Station (CWPRS)*, National Institute of Hydrology (NIH), Department of Science & Technology (DST), Ministry of Agriculture, Water and Land Management Institute (*WALMI*), *Indian Institutes of Technology (IIT)*, NGOs etc. Director INCSW Sectt., CWC is the Member Secretary of the Committee. INCSW has been envisaged as an apex body to coordinate the R&D activities in surface water in general and R&D Programme of MoWR, RD & GR in particular. The subject domain of the INCSW is very broad and covers almost every aspect of water resources sector viz. Hydrology, Hydraulics, Irrigation, Hydro environment, Water Governance etc. INCSW promotes innovations and technologies related to water resources engineering and management in India. Participation in international programmes related to surface water and sponsoring events, talk shows, seminars on various aspects of water resources issues is among one of the objectives of INCSW. INCSW is the National Committee of ICID for India and the organiser for the international conference & exhibition.

**MINISTRY OF AGRICULTURE, GOVT. OF INDIA:** Ministry of Agriculture is the key ministry on promotion of Micro Irrigation in India. From 1st April 2015, Micro Irrigation development in India has been taken up in mission mode under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) under the programme component "Per Drop More Crop".

## CONTACT

### **INCSW Secretariat**

#### **Central Water Commission (CWC)**

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Web site: <http://www.cwc.gov.in/incsw>



## 9th International Micro Irrigation Conference (IMIC)

16-18 January 2019, Aurangabad, Maharashtra



ICID-CHD

### Program (tentative)

Date/ 2019	15-Jan	16-Jan	17-Jan	18-Jan	19-Jan	20-Jan
Day Hours	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
09.00-10.00	Registration	Registration	Registration	Registration	S T U D Y  T O U R	C U L T U R A L  T O U R
10.00-11.30	Pre-conference National Micro Irrigation workshop	9th IMIC Opening Ceremony	Technical Parallel Session	Technical Parallel Session		
		- Opening & Keynote Addresses	1st Parallel Session <b>Sub-theme 1:</b> Presentation of selected papers	3rd Parallel Session <b>Sub-theme 1:</b> Presentation of selected papers		
		- Inauguration of Exhibition	1st Parallel Session <b>Sub-theme 4:</b> Presentation of selected papers	3rd Parallel Session <b>Sub-theme 4:</b> Presentation of selected papers		
			SE1: Supporting event	SE3: Supporting event		
			SS1: Sponsor's Session	SS3: Mega Sponsor's Session		
11.30-12.00		HEALTH BREAK				
12.00-13.30	Pre-conference National Micro Irrigation workshop	Plenary Session I	Technical Parallel Session	Technical Parallel Session		
		<b>Theme :</b> Micro Irrigation in Modern Agriculture - Keynote addresses	1st Parallel Session <b>Sub-theme 2:</b> Presentation of selected papers	3rd Parallel Session <b>Sub-theme 2:</b> Presentation of selected papers		
			1st Parallel Session <b>Sub-theme 3:</b> Presentation of selected papers	3rd Parallel Session <b>Sub-theme 3:</b> Presentation of selected papers		
			SE1: Supporting event	SE3: Supporting event		
			SS1: Sponsor's Session	SS3: Sponsor's Session		
13.30-14.15		LUNCH BREAK				
14.15-15.45	Pre-conference National Micro Irrigation workshop	Plenary Session II (Parallel)	Technical Parallel Session	Plenary Session IV		
	Field Visit	<b>Sub-theme 1:</b> Keynote address and presentation of selected papers	2nd Parallel Session <b>Sub-theme 1:</b> Presentation of selected papers	Presentation of recommendations on Theme and Sub-themes		
		<b>Sub-theme 4:</b> Keynote address and presentation of selected papers	2nd Parallel Session <b>Sub-theme 4:</b> Presentation of selected papers	Discussion and way forward		
			SE2: Supporting event			
			SS2: Sponsor's Session			
15.45-16.15		HEALTH BREAK				
16.15-17.45	Pre-conference National Micro Irrigation workshop	Plenary Session III ( Parallel)	Technical Parallel Session	Panel discussion/Valedictory session		
	Field Visit	<b>Sub-theme 2:</b> Keynote address and presentation of selected papers	2nd Parallel Session <b>Sub-theme 2:</b>			
		<b>Sub-theme 3:</b> Keynote address and presentation of selected papers	2nd Parallel Session <b>Sub-theme 3:</b> Presentation of selected papers			
			SE2: Supporting event			
			SS2: Sponsor's Session			
19.00-22.00		Welcome Dinner	Sponsored Dinner	Sponsored Dinner		
		Registration			Special Sessions (SS)	
		Plenary/ Parallel Sessions			Supporting event (SE)	
		Pre-conference National workshop			Field visit	
					Health/ Lunch break	