



ICAR-IIWM News

भाकृअनुप - भा.ज.प्र.सं. समाचार

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IN THIS ISSUE



DIRECTOR'S COLUMN



Collaborative Research and Extension Programmes on Agricultural Water Management- A Need of Hour

Gone are the days of working in isolation and producing output for benefit of the stakeholders. It is now imperative to expand the stakeholder oriented research and involvement of researchers and line departments working on issues pertaining to agricultural water management for successful implementation of different programmes and initiatives by Government of India (GoI). Both surface and groundwater resources of India are now juxtapositioned with 50% share for meeting the irrigation water requirement. The ground water resources of the country have been exhausted without considering the replenishment. Also, the infrastructure for providing canal irrigation facility is old and are in dilapidated state in majority of canal commands of India. The changing climate scenarios also putting stress in rainfed regions to enhance the agricultural water productivity. Besides this, the initiative by Ministry of Jal Shakti (MoJS), GoI to increase the water use efficiency by 20% necessitates judicious management of the water resources. In view of these, efforts were made by

the Institute to re-orient research programmes as per the need of the stakeholders through meetings with farmers representatives, WUAs, staff of KVK and line departments. Besides this, the technologies developed by the Institute pertaining to Agricultural Water Management (AWM) were disseminated through FARMERS FIRST, TSP, SCSP, MGMG and other flagship initiatives and under the operational externally funded projects of the Institute.

Attempts were made to develop and test integrated sensing systems for soil moisture and make it IoT (Internet of Things) enabled to assist in irrigation scheduling, development of flow depth sensing system in AWD method of irrigation in rice, calibration of indigenously developed capacitance based soil moisture sensing system, automation of drip irrigation system, modelling sea water intrusion, groundwater recharge structures and undertake research experiments on water management of different crops including millets. During this period the RAC, IRC, IMC meetings of the Institute were conducted to review the ongoing research activities being carried out by scientists. There was participation of ICAR-IIWM staff in the ICAR-IIWMI steering committee meeting at Colombo, Sri Lanka and interface meeting with CAD&WM staff of Govt. of Odisha and annual review workshop and chief scientists' meet of 26 AICRP centres. During the period from January to June 2023, about 30 farmers' training programme, workshops and academic interactions both in physical and virtual mode were organized. The MoU was signed with a-IDEA, ICAR-NAARM for sharing technical support to incubation of startups in Agriculture and allied sectors. Institute's activities during last decade were reviewed by Honourable Minister of Agriculture and Farmers' Welfare, GoI and the recommendations were implemented on priority basis. Scientists and staff of the Institute were able to expand their knowledge and were encouraged by visit of eminent personalities and academicians including DDG (NRM), ICAR, Principal Secretary, MoA&FE, Govt. of Odisha, Technical adviser to CM, Govt of Odisha and VC, OUAT and Directors of ICAR Institutes. Besides this, several programme in form of awareness initiatives were organized as desired by the Council and Government of India.



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RESEARCH ACHIEVEMENTS |

IoT Enabling of a Capacitance-based Soil Moisture Sensor

VH400 is a capacitance-based soil moisture sensor which measures the dielectric constant of the soil to accurately determine the soil moisture. The soil moisture sensor is meticulously calibrated in the laboratory to establish a correlation between the output voltage and the soil moisture content using the gravimetric method. This calibration process is essential for generating an accurate equation that relates the output voltage of the sensor to the soil moisture content. Calibration is a necessary process that aims to address

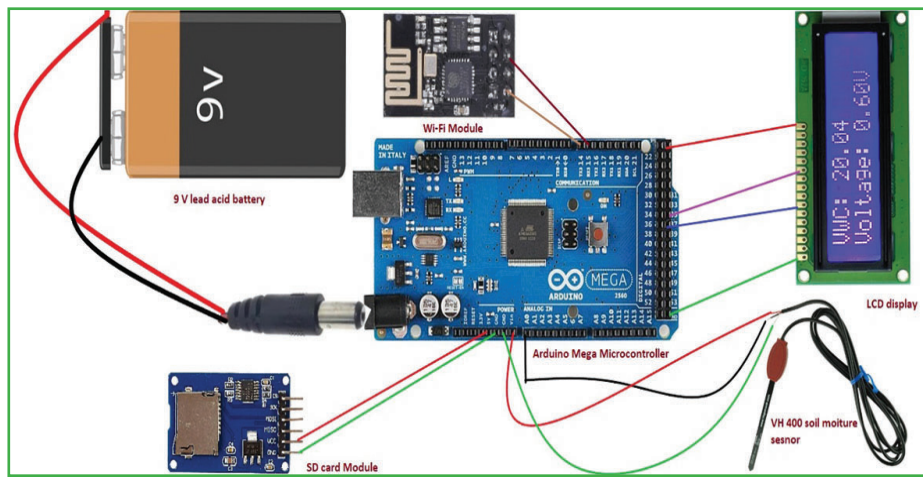


Fig. 1 The system architecture of IoT-enabled VH400 soil moisture sensor

potential sensor drift or variability, while transforming raw sensor results



Fig. 2 Display of Volumetric Soil Moisture content in the LCD and Android based Mobile app (Ajit Kumar Nayak, S. Pradhan, A. Sarangi, S.K. Rautaray, J.S Bal and N.M. Jeepta)

into meaningful moisture content values. The equation that has been generated is embedded into the Arduino microcontroller. Fig. 1 illustrates the architectural design of the IoT-enabled system. The Arduino Mega microcontroller is responsible for the processing of sensor data and its local storage through the utilization of the SD card module. Simultaneously, the Wi-Fi module facilitates the establishment of a wireless connection, enabling the transmission of the gathered data to an online platform such as Blink (Fig. 2). This functionality ensures convenient accessibility and presentation of the data from any location. The microprocessor is powered by a 9V lead acid battery. The integration of these components yield a comprehensive Internet of Things (IoT) system that facilitates precise management of water resources in the field of agriculture. The utilization of the system's real-time data streaming and historical analysis, in conjunction with real-time remote monitoring, enables farmers and agricultural stakeholders to make well-informed decisions on irrigation schedules and water distribution.

SCIENCE

Do System of Rice Intensification (SRI) Practices Produce Rice Plants Phenotypically and Physiologically Superior to Conventional Practice?



AGRONOMY |

The System of Rice Intensification (SRI), an agro-ecological approach to rice cultivation developed in Madagascar, has generated considerable interest worldwide. This paper highlights results of 78 studies in the published literature where SRI results were explicitly compared with recommended

practices (RPs), including best management practices (BMPs) or farmer practices (FPs). The results from 27 countries, plus several large-scale evaluations, showed that in 80% of the evaluations, grain yield was higher under SRI than with RPs or FPs. SRI gave 24% higher grain yield than RPs and 56% more than FPs, while reducing seed, water, and fertilizer inputs. Beyond the descriptive evidence, this paper considers that the phenotypical changes and physiological improvements in SRI-grown rice plants could account for the reported enhancement

in yield. More research remains to be undertaken to elucidate casual mechanisms, but abundant evidence shows that this is a subject deserving considerable scientific effort.

Adapted from Thakur, A.K.; Mandal, K.G.; Verma, O.P.; Mohanty, R.K. 2023. Do System of Rice Intensification Practices Produce Rice Plants Phenotypically and Physiologically Superior to Conventional Practice? Agronomy 2023, 13, 1098. <https://doi.org/10.3390/agronomy13041098>

Research Advisory Committee Meeting

The first meeting of 9th Research Advisory Committee (RAC) of ICAR-IIWM was held during January 27-28, 2023. Dr. Alok Kumar Sikka, IWMI Indian Country Representative and Former DDG (NRM) presided over the meeting as the Chairman, RAC. Dr. A. Velmurugan, ADG (SWM), ICAR, Dr. S. K. Pattanaik attended the meeting physically, whereas Dr. Amit Kar and Dr. B. S. Yadav attended the meeting in virtual mode. Program level presentation and discussion was held on significant research achievements of the Institute. On January 28, 2023 Dr. A. Velmurugan and Dr. S. K. Pattanaik visited the Research farm of ICAR-IIWM along with Director Dr. A. Sarangi and Scientists of ICAR-IIWM. The Members interacted, advised and expressed their satisfaction pertaining to experiments carried out in the research farm of ICAR-IIWM. Dr. S. Mohanty, Principal Scientist and Member Secretary, RAC coordinated the program.



Institute Research Council (IRC) Meeting

The Institute Research Council (IRC) meeting for 2022-23 was held on March 24, 2023. The annual IRC meeting for review of institute funded projects were held on June 7, 8, 9, 12 and 30, 2023 under the Chairmanship of Dr. Arjamadutta Sarangi, Director and Chairman, IRC. The progress and achievements of institute ongoing and concluding projects were presented and discussed in all the IRCs. The Director of the institute encouraged scientists to continue good work, and emphasized timely reporting, systematic record-keeping, and good publications. The meeting was coordinated by Dr S. K. Jena, Principal Scientist and Member Secretary, IRC of the Institute.

Institute Management Committee

The Institute Management Committee Meeting was held on June 28, 2023 under the Chairmanship of the Director, ICAR-IIWM, Bhubaneswar.



Brainstorming on 'Water Quality Issues and Policy guidelines in Agriculture and Aquaculture'



ICAR-IIWM, Bhubaneswar organized brainstorming on 'Water quality issues and policy guidelines in agriculture and aquaculture' on January 13, 2023 through virtual mode. Experts from ICAR, SAUs, IIT, CSIR, ICMR, CGWB, CWC, CPCB, SPCB, IISc, BIS, BMC, DAFE and Govt. of Odisha attended the programme. Dr. S.K. Chaudhari, Deputy Director General (Natural Resource Management), ICAR, New Delhi was Chief Guest of the inaugural programme. Dr. Arjamadutta Sarangi, Director, ICAR-IIWM, Bhubaneswar elaborated the existing gaps related to water quality issues viz., absence of standards or permissible limits of heavy metals, pesticides, herbicides, organics for agriculture and aquaculture use. Nearly 60 participants attended the meeting. The program was organized by Dr. Mausumi Raychaudhuri, Principal Scientist, Dr. Rajeeb K. Mohanty, Principal Scientist and Dr. Dibakar Ghosh, Scientist, ICAR-IIWM, Bhubaneswar.

ICAR-IIWM Celebrated Republic Day

The 74th Republic Day was celebrated on January 26, 2023 with patriotic fervour and gaiety. On this occasion, the national flag was hoisted by Dr. Arjamadutta Sarangi, Director of the institute. He addressed the staff and family members of the institute with encouraging words and urged upon the need for hard work and dedication by the staff for the welfare of the farming community, and to make the institute as well as the country proud.



ICAR- IIWM Participated in Exhibitions

ICAR-IIWM, Bhubaneswar participated in exhibition held at ICAR-National Rice Research Institute, Cuttack during the International Event: Second Indian Rice Congress on 'Transforming rice research: recent scientific developments and global food crisis' from February 11-14, 2023 and showcased advanced ICAR-IIWM water management technologies. Dr. S.K. Mishra, Dr. B.K. Sethy, Dr. P. Panigrahi, Principal Scientists, Dr. Sanatan Pradhan, Senior Scientist and Dr. R.K. Jena, Dr. Ankita Jha, Dr. Debabrata Sethi, Scientists demonstrated the technologies. Mr. P. Barda and Mr. S. Lenka, Technical Officers assisted the Scientists in showcasing the technologies and distributing the publications. Dr M. Raychoaudhuri, Principal Scientist coordinated the exhibition.

ICAR-IIWM, Bhubaneswar participated exhibition at ICAR-Central Institute for Women in Agriculture, Bhubaneswar, during its 28th Foundation Day on February 17, 2023 and displayed ICAR-IIWM Water Management Technologies. Dr. Prativa Sahoo and Dr. Ankhila R. Handral, Scientists, demonstrated the technologies. Mr. P. Barda and Mr. S. Lenka, Technical Officers assisted the Scientists in showcasing the technologies and distributing the publications. Dr M. Raychoaudhuri, Principal Scientist coordinated the exhibition.



ICAR-IIWM Celebrated World Water Day

ICAR-IIWM, Bhubaneswar celebrated World Water Day-2023 on March 22, 2023 through hybrid mode. Dr. Alok Sikka, IWMI India Representative and former DDG (NRM) graced the occasion as Chief Guest; Dr. S.N. Panda, Vice Chancellor, C.V. Raman Global University, Bhubaneswar and Professor

Sekhar Muddu, Indian Institute of Science, Bengaluru graced the occasion as Guest of Honors. Among other dignitaries, Dr. Rajul Maheswari, CEO of Soil & Water Management Start up, Mumbai and Er. Dil Bahadur, State Head, Jain Irrigation Pvt. Ltd. participated in the programme. Shri Radheyshyam Biswal of Lokapal village of Kanas block, Puri district and IARI Innovative Farmer Awardee was felicitated on the occasion.



Off Campus World Water Day Celebration

To sensitize college students regarding water conservation and its judicious use, World Water Day was celebrated at Women's Junior College, Nabarangapur. Dr. P. K. Panda, Principal Scientist of the institute organized the programme and sensitized the staff and students regarding this year's theme 'Accelerating the change to solve water and sanitation crises'. At the end, students were given prizes for quiz competition conducted on the theme 'Water' on March 22, 2023.



ICAR-IIWM Conducted REWARD - National Workshop on Hydrology

ICAR-IIWM, Bhubaneswar conducted REWARD-National Workshop on Hydrology on March 25, 2023. Dr. R.K. Panda, Professor & Director, Centre for Climate Smart Agriculture, Siksha 'O' Anusandhan University, Bhubaneswar graced the occasion as Chief Guest and Dr. S.K. Khatua, Joint Director, Directorate of Soil Conservation and Watershed Development, Odisha, Bhubaneswar as Guest of Honour. Dr. P.K. Pagoda, Sr. Scientist, ORSAC, Bhubaneswar, APD, Daspalla and APD, Odagaon, Nayagarh district attended the workshop and shared their experiences. Some of the progressive farmers from REWARD project site, Nayagarh also shared their experiences on implementation of REWARD project.



ICAR-IIWM Organized a Training Program on Watershed Management

ICAR-IIWM conducted four days training during March 20-23, 2023 for progressive farmers of different micro-watersheds, Self Help Group members and officials from Kodejunga, Durgukondal, Uttar Bastar Kanker district of Chhattisgarh on scientific 'Water harvesting and management in watershed' under New Generation Watershed Development Programme (NGWDP), PMKSY – WDC 2.0. A total of 35 farmers participated in the programme. Dr Arjamadutta Sarangi, Director and Course Director of the programme, encouraged to spread the knowledge acquired from the training to other fellow farmers in the watershed. The programme was coordinated by Dr. D. C. Sahoo and Dr Ranu Rani Sethi, Principal Scientists of the Institute.



ICAR-IIWM Organized Residential Training Programme

ICAR-IIWM, Bhubaneswar organized three-day residential training programme on 'Planning and management of watershed interventions for enhancing crop productivity' during April 17-19, 2023 sponsored by ICICI Foundation for Inclusive Growth.

Total 40 nos. of executives/professionals of the foundation attended the program. The programme was coordinated by Dr. D. C. Sahoo, Principal Scientist of the Institute.



ICAR-IIWM Organized Training on REWARD Hydrology

ICAR-IIWM Organized Training on REWARD hydrology for PIA & PDs during May 2-3, 2023 at ICAR-IIWM, Bhubaneswar in which all the PDs, APDs, PIAs and project staff of REWARD districts participated. Soil and water conservation measures, drainage line treatment plans, design and estimates of soil conservation structures, groundwater recharge planning were discussed for development of DPRs for REWARD districts. Dr. S.K. Jena, Dr. D.C. Sahoo and Dr. R.R. Sethi, Principal Scientists of the Institute organized the program.

ICAR-IIWM Celebrated Foundation Day

ICAR-IIWM, Bhubaneswar celebrated its 36th Foundation Day on May 11, 2023. Dr. Arabinda Kumar Padhee, IAS, Principal Secretary (Agriculture & Farmers' Empowerment), Govt. of Odisha, Dr. S.K. Chaudhari, DDG (NRM), ICAR, New Delhi and Prof. Pravat Kumar Roul, Vice Chancellor, OUAT, Bhubaneswar graced the occasion as Chief Guests. On the occasion, esteemed guests felicitated five progressive farmers and farm women from different villages of Odisha for adopting and promoting water saving technologies in agriculture. A farmers-scientists interaction meet cum *Kisan Goshthi* and agricultural exhibition was organized. New institute website (<https://iiwm.icar.gov.in>) has been developed as per GIGW guidelines.



Hon'ble DDG (NRM) Visited ICAR-IIWM

Honorable DDG (NRM), ICAR, New Delhi visited ICAR-IIWM, Bhubaneswar on May 11-12, 2023. A Policy level interaction meeting was organized under the Chairmanship of Dr. S. K. Chaudhury, DDG (NRM) ICAR, New Delhi. He visited the 'Automation of alternate wetting and drying method of irrigation in rice' developed under NePPA. The technology was demonstrated to nearly 40 farmers.



ICAR-IIWM Organized Hindi Workshops

Hindi workshop was organized on 'Rajbhasha Hindi mein Smart Tools ka Prayog' on May 30, 2023. The workshop was presided by Dr. Arjamadutta Sarangi, Director of the institute. A lecture was delivered by Shri Hariram Pansari, Retired Senior Manager (Rajbhasha), NALCO, Bhubaneswar. Dr. O.P. Verma, Senior Scientist and Shri K.K. Sharma, Technical Assistant (Hindi Translator) coordinated the workshop.



Chief Scientists Meet of AICRP on IWM

The Chief Scientists meet of AICRP on Irrigation Water Management was organized at CSKHPKV, Palampur in collaboration with ICAR-IIWM, Bhubaneswar during June 21-23, 2023. Dr. S. K. Chaudhari, Deputy Director General (NRM), ICAR graced Inaugural Session as Chief Guest and Dr. H. K. Chaudhary, Vice Chancellor, CSKHPKV, presided over the Inaugural Session. Dr. C. L. Acharya, Former Director, IISS, Bhopal and Dr. A. Velmurugan, ADG (SWM), ICAR, Dr. A. Sarangi, Director, ICAR-IIWM, Dr. S. P. Dixit, Director (Research), Dr. N. K. Sankhyan, Head, Department of Soil science, CSKHPKV, Palampur, Dr. Adlul Islam, Principal Scientist, NRM Division, Dr. R. B. Singandhupe and Dr. Uday Khodke were present in the meeting. During the three-day period, research achievements of the 26 AICRP centers were presented by the respective Chief Scientists in seven Technical Sessions. Dr. S. Mohanty, Principal Scientist, PCU coordinated the program.



EVENTS, NEWS & CELEBRATIONS

Student Internship Program

Five Final year B.Tech (Agril Engg.) students from Department of Agricultural Engineering, School of Agricultural and Bio-Engineering, Centurion University of Technology &

Management, Paralakhemundi, Odisha completed two-month Internship Programme at ICAR-IIWM, Bhubaneswar during March 13 to May 12, 2023. The program was coordinated by Dr. M. Raychaudhuri, Principal Scientist, Dr Roomesh Kumar Jena and Dr Ankita Jha, Scientists of the Institute.



ICAR-IIWM Coordinated Exposure Visits

Fifty students of 4th year M.Sc (Ag) students of ANGRAU Agricultural College Naira Srikakulam District, Andhra Pradesh visited ICAR-IIWM, Bhubaneswar on April 20, 2023 and were exposed to different water management practices for sustainable agriculture. Ten students of 2nd year B.Sc

(Agri Business) with specialization on water management in horticultural crops (HWM 102) and irrigation water management (IWM 204) from SRI SRI University Cuttack were on exposure visit to ICAR-IIWM on June 2, 2023. Both the visits were coordinated by Dr. M. Raychaudhuri, Principal Scientist and Programme Leader (OFTD) of the Institute.

ICAR-IIWM Participated Steering Committee Meeting at International Water Management Institute (IIWM) Colombo, Sri Lanka



Dr. Arjamadutta Sarangi, Director and Dr. Susanta Kumar Jena, Principal Scientist attended ICAR-IIWM steering committee meeting at IIWM, Colombo, Sri Lanka during April 21-23, 2023.

ICAR-IIWM Released the First Episode of ICAR-IIWM *Krishi Jal Samachar*

On the 36th Foundation Day of ICAR-IIWM, the Institute released its first episode of ICAR-IIWM *Krishi Jal Samachar* (Bhag-01) in Hindi language on May 11, 2023. It highlighted the news/activities/events/celebration of the institute along with some promising technologies such as enhancing water productivity in drip irrigated pre-bearing mango orchards in degraded land, canopy architecture and drip irrigation in guava, solar-based drip irrigation in multi-tier cropping system of horticultural crops, and levelling of land with laser leveller. It is available on YouTube Channel (<https://www.youtube.com/watch?v=qqeAjImCjPk>). This *samachar* was prepared by Dr. A.K. Thakur, Principal Scientist, Dr. O.P. Verma, Senior Scientists, Dr. D. Ghosh, Dr. P. Sahu, Dr. A. Jha, Scientists of the Institute.



ICAR-IIWM Observed Rice Field Day cum Crop Cutting Experiments

A Rice field day was organized at Haridamada village of Khordha district on May 19, 2023 under Farmer FIRST Programme. Crop cutting experiments of summer paddy of two demonstrated varieties *CR Dhan 310* (bio-fortified variety with high grain protein content of 10.3%) and *Naveen* were conducted in the presence of twenty-five participating farmers, scientists and project staffs. Average fresh grain yield of 6.96 t/ha and 6.07 t/ha were recorded in *CR Dhan 310* and *Naveen* respectively, which were found to be about 10-15 per

cent more over the existing popular summer rice varieties *Lalat* and *Mamata*. The programme was coordinated by Dr. S.K. Mishra, Principal Scientist and Dr. B.S. Satapathy, Senior Scientist of the Institute.



ICAR-IIWM, Celebrated World Environment Day

ICAR-IIWM, Bhubaneswar celebrated World Environment Day on June 5, 2023 with plantation drive and mass awareness campaign on Mission LiFE, i.e., Lifestyle for Environment. The event was inaugurated by Dr. Arjamadutta Sarangi, Director of the Institute in Haridamada adopted village of Khordha district with the planting of fruit saplings in a village community ground. The village programme was followed by an avenue plantation drive at the Institute research farm near Deras, Khordha and later that day in the campus residential colony of ICAR-IIWM. More than hundred staff, family members and villagers actively participated in the plantation drive cum 'Mission LiFE' awareness campaign and planted over hundred plants.



ICAR-IIWM Celebrated International Day of Yoga (IDY)

ICAR-IIWM, Bhubaneswar celebrated 9th International Day of Yoga (IDY) on June 21, 2023 with the theme of *Vasudhaiv Kutumbakam*. The Common Yoga Protocol (CYP) was performed in the Institute premises by Shri H. Tirkey, Yoga teacher, *Patanjali Yog Peeth*, Khurda, Bhubaneswar, Odisha. A total of 35 members participated in the event.



ICAR-IIWM Signed MoU

ICAR-IIWM, Bhubaneswar signed MoU with C.V. Raman Global University, Bhubaneswar on June 26, 2023 for facilitating students' training/Postgraduate Research.



MoU signed with a-IDEA for sharing technical support (access to laboratories), co-incubation, co networking and cohosting the events/programs/activities related to incubation of startups in Agriculture and allied sectors. ICAR-IIWM will support the incubates of a-IDEA who are involved in the process of product development and commercialization.



CAPACITY BUILDING & TRAININGS

Training and Capacity Building of ICAR- Employees

Official & Designation	Subject	Organization	Period
Dr. Ashok K. Nayak, Principal Scientist	Impactful ICT Applications and Technologies in Agriculture (Online Mode)	ICAR-NAARM, Hyderabad	February 6-10, 2023
Dr. D. Ghosh, Scientist, Dr. R.K. Jena, Scientist	Data Visualization using 'R' (Online mode)	ICAR-NAARM, Hyderabad	March 1-8, 2023

Training/Program Organized for the Farmers by ICAR-IIWM

Subject	Place	Period	Participants
Soil and water conservation measures for enhancing water productivity	Adarsa Training Center, Sambalpur	February 1-3, 2023	45
Scientific backyard poultry farming for livelihood and nutritional security' under SCSP programme	Viligram, Nimapara, Puri	March 10, 2023	59
Capacity building programme for entrepreneurship development in Agriculture and its allied sectors	Women's Junior College, Nabarangapur	March 16, 2023	150
Seed treatment, nursery management and green manuring in <i>Kharif</i> paddy	Haridamada, Khordha	June 12, 2023	59
Seed treatment, nursery management and green manuring in <i>Kharif</i> paddy	Giringaput, Khordha	June 13, 2023	92
Capacity building training program on 'SRI for tribal paddy farmers' under STC programme	Khaira, Rayagada and Phattachanchada, Gajapati	June 29-30, 2023	101

Webinar/Programs/Virtual Meetings Attended by Scientists

Officials	Name of the Conference / Meeting / Workshop / Symposium / Seminar	Organized by	Period
Dr. S.K. Jena	Inception workshop of IVA (Independent verification agency) under REWARD	DSCWD, Govt of Odisha & XIMB university at Krushi Bhavan, Bhubaneswar	January 3, 2023
Dr. O.P. Verma	72 nd half yearly meeting on ‘Town official language implementation’	Institute of Physics, Bhubaneswar	January 6, 2023
Dr. S.K. Rautaray	First technical advisory committee meeting of NePPA	ICAR-CIFRI, Kolkata	January 10-11, 2023
All Scientists	Brain Storming on ‘Water quality issues and policy guidelines in agriculture and aquaculture’ (Online)	ICAR-IIWM, Bhubaneswar	January 13, 2023
Dr. P. Sahu	International conference on ‘New generation horticulture for prosperity’	Odisha Horticultural Society in association with College of Agriculture, OUAT, Bhubaneswar	Jan 20-21, 2023
Dr. A. Sarangi Dr. S. K. Rautaray Dr. S. Mohanty Dr. R.K. Jena	Workshop on ‘Systems approach to agriculture and pathways for action’	Department of Agriculture and Farmers Empowerment, Government of Odisha	January 25, 2023
Dr. R.K. Panda	Inception workshop for the project ‘Built water storage in South Asia’	IWMI, New Delhi	January 30, 2023
Dr. D.C. Sahoo Dr. S.K. Mishra Dr. B.K. Sethy Dr. R.R. Sethi	Three day off-campus training programme on ‘Soil and water conservation measures for enhancing water productivity’	ICAR-IIWM and PRADAN-NGO, Bhubaneswar	February 1-3, 2023
Dr. S.K. Jena, Dr. R.K. Panda	Evaluation meeting of Foreign aided projects of NRM Division, ICAR (online)	NRM Division, ICAR, New Delhi	February 7, 2023
Dr. S.K. Jena	National guidelines on REWARD	NRSC, Hyderabad	February 13, 2023
Dr. S.K. Jena	National guidelines on REWARD	ICRISAT, Hyderabad	February 14, 2023
Dr. S.K. Jena, Dr. Prativa Sahu Dr. Ankhila R.H	13 th National Symposium of ISCAR on ‘Fostering resilient coastal agro-ecosystems’	Indian Society of Coastal Agricultural Research at Acharya N. G. Ranga Agricultural University, Tirupati, Andhra Pradesh	February 22 – 25, 2023
Dr. A. Sarangi Dr. S.K. Jena	Training workshop on REWARD Hydrology	IIT, Bhubaneswar	March 20-21, 2023
Scientists and staffs	ICAR Eastern zone sports meet	ICAR-IVRI, Bareilly, UP	April 24-28, 2023.
All Scientists	World intellectual property day celebration and guest lecture on ‘Women and IP: Accelerating innovation and creativity’ by Dr. Amaresh Panda, Head, RTTO, KIIT-TBI, Bhubaneswar	ICAR-IIWM, Bhubaneswar	April 26, 2023
Dr. S.K. Rautaray	State Level Consultation on ‘Preparation of drought management plan’	Odisha State Disaster Management Authority, State Convention Centre, Lok Seva Bhawan, Government of Odisha	May 29, 2023
Dr. S. Mohanty	National workshop on ‘Per drop more crop’	Department of Agriculture and Farmers Welfare, Govt. of India	May 31, 2023
Dr. S.K. Rautaray	National Training Conclave-2023	Capacity Building Commission (CBC), GoI Pragati Maidan, New Delhi	June 11, 2023

KISAN SAMPARK SUTRA (KSS)

ICAR-IIWM, Bhubaneswar initiated 'KISAN SAMPARK SUTRA' and continued the program in order to connect and interact with farmers in virtual mode from different States of India on fortnight basis (7.00 PM onwards). Six programs in Hindi language for the farmers across the country and six programs in *Odia* language for the farmers of Odisha were conducted during this period. A total of 22 topics on water management aspects and popularization of millet crops were discussed and about 450 farmers participated. Dr. M. Raychaudhuri, Principal Scientist and Program Leader, (OFTD), Dr. D. Ghosh & Dr. A. Jha, Scientists coordinated the programme.

Distribution of Inputs and Machineries in SCSP Project Villages

Farm implements like mini power weeders, shade nets, water soluble fertilizers, plastic cladding film for protected cultivation structure, HDPE sprinkler pipes, fittings of sprinkler irrigation including riser and sprinkler, end caps, Qc bend, Tee, pump connectors, etc., vermicompost, barbed wire, galvanized sheets, decomposers were distributed to farmers of Hansapada and Villigram villages of Nimapara block of Puri district of Odisha on April 4, 2023. Nearly 200 farm families of SCSP project were benefited through this input. HYV paddy seeds were distributed to 58 farmers in Nimapara block for cultivation in *kharif* season.

Under the NICRA-CGC project, the SCSP component was launched at Berhampura village of Narsinghpur block of Cuttack district on June 25, 2023

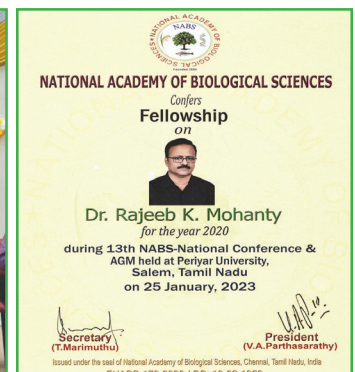
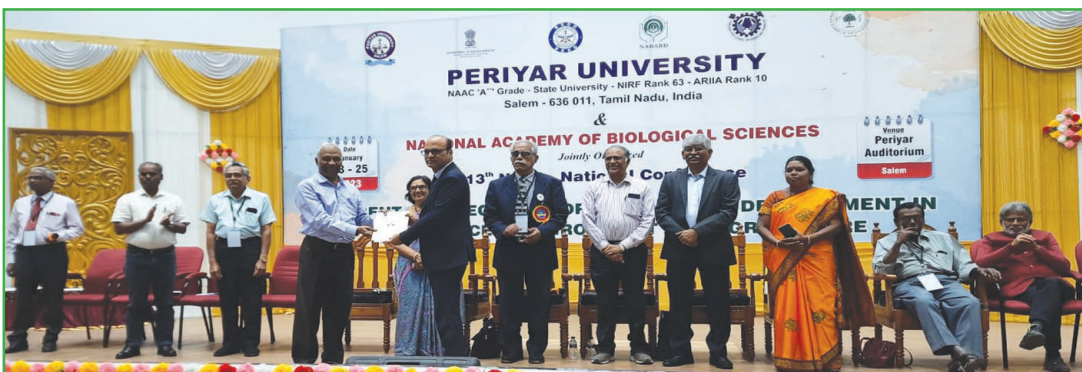
ICAR-IIWM Participated in ICAR East Zonal Sports Meet

The sports contingent of 20 participants of ICAR-IIWM participated in ICAR East Zonal Sports Meet at ICAR-IVRI, Bareilly during April 24-28, 2023. Mrs. Subhashree Satapathy, LDC, got 1st prize in Table Tennis (W) singles, 2nd prize in both Badminton (W) and shot put (W) events. Dr. Rajeeb K. Mohanty, Principal Scientist, was Chief-de-Mission and Mr. Rajib K. Dalei, AAO acted as Team Manager.



AWARDS, HONOURS & RECOGNITIONS

- Dr. A. K. Thakur, Principal Scientist awarded with 'NABS Fellow 2020' for outstanding contribution to the field of Agriculture by the National Academy of Biological Sciences (NABS), Chennai on 25 January, 2023.
- Dr. R. K. Mohanty, Principal Scientist awarded with 'NABS Fellow 2020' for outstanding contribution to the field of Aquaculture by the National Academy of Biological Sciences (NABS), Chennai on 25 January, 2023.
- Dr. R. K. Mohanty, Principal Scientist appointed as Nodal Officer of a-IDEA.
- Dr. M. Raychoaudhuri, Principal Scientist has chaired the technical session on 'Women empowerment for resilient and adaptation under changing paradigm' of the agriculture and forestry sciences during 108th Indian Science Congress at RTMNU, Nagpur and delivered invited lecture on 'Water quality and food security' during January 3-7, 2023.
- Dr. P. K. Panda, Principal Scientist Invited as Chief Speaker in the State Level Science Exhibition at BJB High School Exhibition ground, Khordha on January 4, 2023.
- Dr. R. K. Jena, Scientist delivered a lecture on 'Land Resource Inventory (LRI) for Sustainable Agriculture using Geospatial techniques' in 'Conservation agriculture' skill development training course at College of Agriculture, OUAT, Chiplima, Sambalpur under IDP-NAHEP on January 05, 2023.
- Dr. O. P. Verma, Senior Scientist received 'Appreciation Certificate' 2023 from Ministry of Home Affairs, Department of official language for significant contribution as active member of sub-committee of town official language implementation committee, Bhubaneswar on January 6, 2023.
- Dr. P. Sahu, Scientist delivered a talk on 'Role of conservation agriculture in horticultural production' in the skill development training course 'Conservation agriculture' at College of Agriculture, Chiplima, Sambalpur, under IDP-NAHEP on January 9, 2023.
- Dr. A. K. Thakur, Principal Scientist acted as Expert member of Selection Committee of Assistant Professor of Plant Physiology, OUAT, Bhubaneswar during 9-10 January, 2023.
- Dr. R. K. Mohanty, Principal Scientist acted as Expert Member



- of Scrutinization Committee for Dean, Fisheries, OUAT, Bhubaneswar on January 17, 2023.
- Dr. A. K. Thakur, Principal Scientist acted as Expert member for the promotion of teachers/scientist under the Career Advancement Scheme at Dr RPCAU, Pusa during 13-14 February, 2023
 - Dr. D. Ghosh, Scientist delivered a lecture on 'Weed management in conservation agriculture' in 'Conservation agriculture' skill development training course at College of Agriculture, Chiplima, Sambalpur under IDP-NAHEP on January 17, 2023.
 - Dr. R. K. Jena, Scientist delivered a lecture on 'Land Resource Inventory (LRI) for Sustainable Agriculture using Geospatial techniques' in 'Conservation agriculture' skill development training course at College of Agriculture, OUAT, Chiplima, Sambalpur under IDP-NAHEP on January 17, 2023.
 - Dr. P. Sahu, Scientist awarded with 'Best oral presentation award' for the presentation on 'Enhancing water productivity of drip irrigated pre-bearing mango orchard in degraded land of Eastern India' in the International Conference organized by Odisha Horticultural Society in association with College of Agriculture, OUAT, Bhubaneswar during January 20-21, 2023.
 - Dr. P. Sahu, Scientist awarded with 'Young Scientist Award' in the International conference organized by Odisha Horticultural Society in association with College of Agriculture, OUAT, Bhubaneswar during January 20-21, 2023.
 - Dr. A. K. Thakur, Principal Scientist chaired a session in the 13th NABS National Conference on Current Perspectives for Sustainable Development in Life Sciences, Environment and Agriculture held at Periyar University, Salem, Tamil Nadu during 23-25 January, 2023.
 - ICAR-IIWM adopted farmer Sri Radhashyam Biswal of *Lokapala* village in Kanas block of Puri received the prestigious 'IARI-Innovative Farmer Award 2023' in *Pusa Krishi Vigyan Mela* organized at ICAR-IARI, New Delhi on February 4, 2023.
 - Dr. R. K. Jena, Scientist delivered a lecture on 'Applications of remote Sensing and GIS for soil resource mapping and preparation of LRI' in 'Advance applications of remote sensing and GIS in natural resource management' 21 days winter school at College of Agricultural Engineering and Technology, OUAT, Bhubaneswar on February 09, 2023.
 - Dr. P. Sahu, Scientist delivered a lecture on 'Role of environmental factors and their control in protected cultivation for horticultural crop' for the skill development training course at College of Agriculture, Chiplima, Sambalpur under IDP-NAHEP on February 10, 2023.
 - Dr. S.K. Mishra, Principal Scientist acted as Judge for evaluating poster presentations of 'Social Science Theme: Socio-extension approaches in rice farming to address global food security issues' during the '2nd Indian Rice Congress' organized by the 'Association of Rice Research Workers (ARRW)', Cuttack at ICAR-NRRI, Cuttack on February 12, 2023.
 - Dr. R. K. Panda, Principal Scientist honored as a key speaker in Session on 'Natural resources management for agricultural resilience through innovative development' in Krushi Odisha 2023 organized by Department of Agriculture & Farmers' Empowerment, Govt. of Odisha on 18 February, 2023.
 - Dr. S. Mohanty, Principal Scientist was part of the Expert team which visited Raipur to study the technical capability, experience, capacity of the factory of 2 Micro-irrigation companies during February 20-21, 2023.
 - Dr. S.K. Jena presented Lead paper in the 13th National symposium on fostering resilient coastal agro-ecosystem conducted by ISCAR, ICAR-CSSRI, Canning town, WB at Tirupati during February 22-25, 2023.
 - Dr. P. Sahu, Scientist awarded with 'Best oral presentation Award' for the presentation on 'Gamma radio sensitivity study on papaya cv. Ranchi Local & Arka Surya' in 13th National Symposium of ISCAR organized by ISCAR at Acharya N. G. Ranga Agricultural University, Tirupati, Andhra Pradesh during February 22 – 25, 2023.
 - Dr. M. Raychaudhuri, Principal Scientist delivered invited talk on 'Wastewater management' in 'Sensitization meet of the NGOs of Khordhadistrict' at ICAR-IIWM, Bhubaneswar on March 3, 2023.
 - Dr. S. K. Mishra, Principal Scientist delivered invited talk on 'Water Management' in 'Sensitization meet of the NGOs of Khordhadistrict' at ICAR-IIWM, Bhubaneswar on March 3, 2023.
 - Dr. P. K. Panda, Principal Scientist invited as Guest of Honour in the valedictory function of National Seminar on 'Environment, climate change and save wildlife' organized by Suryakhetra Foundation at Jayadev Bhawan, Bhubaneswar on March 8, 2023.
 - Dr. P. K. Panda, Principal Scientist delivered a talk on 'Accelerating the change to solve water and sanitation crises' at Asian School of Business Management University on March 22, 2023.
 - Dr. B S Satapathy, Senior Scientist delivered a guest lecture on 'Water management in direct seeded rice' conducted by ICAR-CIWA, Bhubaneswar on March 28, 2023 (online).
 - Dr. S.K. Jena, Principal Scientist provided technical guidance and installed eight rubber dams in Kasaragod districts of Kerala in collaboration with Engineers of Water Resources Department and Kasaragod Development agency, Government of Kerala during April 2023.
 - Dr. R. K. Mohanty, Principal Scientist acted as Expert member of selection committee for inter-institutional transfer of Technical Officers at ICAR-CIFA, Bhubaneswar on April 5, 2023
 - Dr. S.K. Mishra, Principal Scientist evaluated one start-up '*E-panipuri Katrz*', Bhubaneswar for release of 2nd instalment of fund by the a-IDEA Incubation Centre of ICAR-NAARM, Hyderabad on April 26, 2023.
 - Dr. S. Mohanty, Principal Scientist was part of the Expert team to study the technical capability, experience, capacity of the factory of a micro-irrigation company which visited Bangalore during April 29-30, 2023.
 - Dr. P. K. Panda, Principal Scientist awarded '*Utkal Prativa Ratna Samman*' on the occasion of *Utkal Dibasa* at Jayadev Bhawan by Happy Home Society.
 - Dr. S.K. Jena, Principal Scientist acted as member of the committee for 'Periodic review of assessment and mapping of waterlogged area of major and medium irrigation projects in India', Nominated by Government of India, Ministry of Jal Shakti.
 - Dr. S.K. Jena, Principal Scientist acted as member (Councilor) of Executive Council of Indian Society of Coastal Agricultural Research, Canning Town, West Bengal.
 - Dr. S. K. Jena, Principal Scientist acted as member, Research Advisory committee of Centre for climate smart agriculture, SoA University, Bhubaneswar.
 - Dr. M. Raychoaudhuri, Principal Scientist evaluated Ph.D thesis on 'Synthesis of Tio₂-based nano-pphotocatalysts for organic synthesis, wastewater treatment and antibacterial photocatalytic therapy' for Centre for the Environment, IIT Guwahati.
 - Dr. B. S. Satapathy, Senior Scientist delivered a guest lecture on 'Improved agronomic practices under direct seeded rice for enhancing productivity' in the training on organized by ICAR-NRRI, Cuttack at Ranjhali, Ganjam, on May 26, 2023.
 - Dr. B. S. Satapathy, Senior Scientist delivered a guest lecture



on 'Improved agronomic practices under direct seeded rice for enhancing productivity' in the training organized by ICAR-NRRI, Cuttack at Rajualibindha, Bhadrak on May 28, 2023.

- Dr. R. K. Mohanty, Principal Scientist acted as Expert member for the promotion of scientists under the Career Advancement Scheme at ICAR-CIFA, Bhubaneswar on June 16, 2023
- Dr. P. K. Panda, Principal Scientist acted as Guest of Honour to deliver a talk on 'Impact of climate change on Odisha Agriculture' in Jayadev Bhawan during second Suban Khuntia Memorial Lecture on June 17, 2023.
- Dr. D. K. Panda, Principal Scientist nominated as member of the NGP-DST 'Screening committee on shortlisting of proposals in geospatial science development' by DST.

Radio/TVTalk

- Dr. P. Sahu, Scientist delivered a talk on 'Soilless dragon fruit farming' in 4 different regional news channels i.e. in Naxatra News Channel on May 30, 2023, Argus News on June 13, 2023, Reporters Today on June 22, 2023, Kanana News on June 24, 2023.

Joining, Promotion, and Superannuation

- Dr. K.K Bandyopadhyay, Principal Scientist joined this Institute on June 30, 2023 after getting transferred from ICAR-IARI, New Delhi.
- Mr. Ashish Madhukar Jadhav, Scientist joined this Institute on May 24, 2023.
- Shri Chhotelal promoted to Assistant Chief Technical Officer on May 9, 2023.
- Shri A. K. Binakar promoted to Technical Officer on March 20, 2023
- Shri Laxman Singh Tiyu promoted to Technical Officer on March 20, 2023

List of Awardees on 36th Foundation Day of ICAR-IIWM

Sl. No	Award	Name	
1	Lifetime contribution Award-2022	Dr Atmaram Mishra, Retd. Principal Scientist	
		Dr Madhumita Das, Retd. Principal Scientist	
		Dr Sachidulal Raychaudhuri, Retd. Principal Scientist	
2	Progressive Farmer Award-2022	Smt. Basanti Naik, Badamba, Cuttack	
		Shri Dhruva Charan Jena, Kendudhipi, Nayagarh	
		Shri Kalandi Charan Behera, Haridamada, Khorda	
		Shri Prakash Chandra Bhoi, Ranga Matha, Nimapara, Puri	
		Shri Krushna Chandra Senapati, Rabara, Nayagarh	
3	Award for Scientist		
		Outstanding Scientist Award-2022	Dr Amod Kumar Thakur, Principal Scientist
		Young Scientist Award-2022	Dr Prativa Sahu, Scientist
4	Best Employee Award-2022		
		Administrative Staff	Shri Rajib Kumar Dalai, Asst. Administrative Officer
		Technical Staff	Shri Basanta Kumar Acharya, Technical Officer
		Supporting Staff	Shri Bhaskar Dutta, Skilled Supporting Staff
5	Appreciation Award for Best Research paper publication	Dr Dileep Kumar Panda, Principal Scientist	
6	Appreciation Award for Outstanding Performance in ICAR Zonal sports Tournament (Eastern Zone)	Mrs Subhashree Satapathy, Lower Division Clerk	

