

Industry Institute Interaction (IIIC) and Institution's Innovation Council (IIC)

04-08-2025

A report on "Sense of Urgency to develop the preparation & implementation of operation plans in irrigation projects using the tools of AIML, Spatial Technologies & Optimization methods to ever increase the water use efficiency: Case Studies"

 <p>NALLA NARASIMHA REDDY EDUCATION SOCIETY'S GROUP OF INSTITUTIONS-INTEGRATED CAMPUS (UGC AUTONOMOUS INSTITUTION)</p>	
<p>Industry Institute Interaction Cell (IIIC) & Institution's Innovation Council (IIC) <i>in association with</i> DEPARTMENT OF CIVIL ENGINEERING <i>Organize a Guest Lecture on</i></p>	
<p>Resource Person</p>  <p>Dr. Mohammed Hussain CEO, Chief Empowering Officer, Centre of Capacity Building for Seventeen Sustainable Development Goals of United Nations (CBB-SSDG) & Former Professor of Civil Engg., GRIET & Former Faculty Member WALAMTARI, Hyderabad</p>	<p>Sense of Urgency to develop the preparation & implementation of operation plans in irrigation projects using the tools of AIML, Spatial Technologies & optimization methods to ever increase the water use efficiency: Case Studies</p>
<p>Date: 4th August 2025</p>	<p>Time: 11:00 AM</p>
<p>Venue: Conference Hall, Ground Floor</p>	
<p>Shri Nalla Narasimha Reddy <i>Chairman</i></p>	<p>Shri Nalla Prashanth Reddy <i>Vice-Chairman</i></p>
<p>Dr. C.V. Krishna Reddy <i>Director</i></p>	<p>Dr. G. Janardhana Raju <i>Dean - School of Engineering</i></p>
<p>Dr. G. Subba Rao <i>HoD - Civil</i></p>	<p>Dr. V. Indrani <i>HoD - DS</i></p>

The Department of Civil Engineering organized a Guest Lecture on **A report on "Sense of Urgency to develop the preparation & implementation of operation plans in irrigation projects using the tools of AIML, Spatial Technologies & Optimization methods to ever increase the water use efficiency: Case Studies"** by inviting Dr Mohammed Hussain, in collaboration with the IIC. The expert lecture is designed to help the Civil and CSE (DS) students to understand how the tools of AIML, Spatial Technologies & Optimization methods. Throughout the session, the Resource Person engaged the student participants with theoretical concepts, real-world examples, and case studies to foster a deeper understanding.

The session began at 11AM with an introduction of the Resource Person Dr Mohd Hussain and his experiences in various fields. A total of 115 students (Civil 59 & CSE Ds 55) and 11 faculty (Civil 08 & CSE-DS 03) attended the Guest Lecture. Dr Mohd

Hussain, he spoke about Irrigation and its progress using IOT. He also emphasized on usage of cloud computing, drone technology with respect to water resources and irrigation. He said that Drone technologies can also be used as a part of Spatial Technologies in coordination with Machine Learning. Artificial Intelligence can be used as a supporting tool for Irrigation systems to optimize moisture and enhance crop yield.



The resource person spoke about a project which was implemented in Turkey in which native plant species were grown by using Artificial Intelligence Technologies. He also emphasized on Flood monitoring, Drought monitoring, water use efficiency and Crop Production which can be implemented by using QGIS and Google Earth Engine.





The session concluded with a recap of the key concepts like tools of AIML, Spatial Technologies, Optimization methods in irrigation projects. The session provided a comprehensive understanding of how these frameworks work together to foster innovation and problem-solving. The session ended by vote of thanks by Ms Harika III year CSE-DS student

Mr P Satish Kumar
Guest Lecture i/c

Dr G SUBBA RAO
HOD-CE

Dr G JANARDHANA RAJU
Dean-SoE & Convener-IIC