Department of Civil Engineering, IIEST Shibpur
1st International Conference on
Application of Civil Engineering in Agriculture (ACEA 2025)
4 – 6 December, 2025

Detailed Session information

Conference Venue: Seminar Hall, Dept of Civil Engg, IIEST Shibpur.

Online meeting link: meet.google.com/zdb-zekx-njh

Inaugural Session
4th December 2025 11:00 AM

Chief Guest: Er. Jayanta Das (Chief Engineer)

Department of Water Resources Investigation and Development

Government of West Bengal

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KEYNOTE SESSION 1: Day 1 (4th Dec), 02:30 PM (IST)
Chair and Rapporteur: Prof. Dipankana Bhattacherjee

Prof. Gopal R Patil
IIT Bombay

Invited talk on role of Transportation Logistics in Agriculture

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SESSION 1: Day 1 (4th Dec), 03:40 PM (IST)
Transportation Logistics and Rural Traffic
Chair: Prof. Tapash Kr Roy. Rapporteur: Dr. Kunjori Mog

S. No.	Paper Id.	Title and Name of the Authors
1	13	Impact of Transport Quality on Agricultural Production in Rural Areas: A Structural Equation Modeling Approach
		Soumen Kundu, Smruti Sourava Mohapatra
2	32	Dynamic Behaviour of Electric Light Commercial Vehicles under Loaded and Unloaded Conditions: Implications for Urban and Agricultural Mobility
		Sharif Hossain, Anuj Kishor Budhkar
3	36	Real-Time Visibility Estimation Using Foggy Images: A Cost-Effective Image Processing Approach for Safer Agricultural Transport in Rural India
		Angshuman Pandit, Anuj Kishor Budhkar
4	38	Empirical Assessment of Transport Cost Determinants in Agro-Logistics
		Soma Paul, Antonia Emi Attinger, Anuj Kishor Budhkar, Angshuman Pandit

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SESSION 2: Day 2 (5th Dec), 10:30 AM (IST)
Civil Engineering Materials in Agriculture
Chair: Dr. Pritam Saha. Rapporteur: Dr. Sheikh Sohel Islam

S. No.	Paper Id.	Title and Name of the Authors
1	12	Sustainable Rigid Pavement Construction using Rice Husk Ash as a Partial Cement Replacement
		Aditya Ghosh, Tapash Kumar Roy
2	14	Utilization of Coconut Shell Powder, an Agricultural Waste, for Improving the CBR Value of Subgrade Soil
		Abhijit Mondal, Animesh Gayen, Saptarsi Batabyal, Indranil Mukherjee, Mirza Musaraf Ali
3	16	Sustainable Road Construction Using Agricultural Waste: A Study on Coir Fiber-Reinforced Bituminous Mixes
		Goutam Das, Abhijit Mondal, Bipradip Sen, Puja Das
4	17	Combined effect of Waste Polyethylene Terephthalate and Rice Husk Ash in Stone Matrix Asphalt used for Rural Roads
		Asit Ghosh, Tapash Roy
5	33	Effectiveness of Fly Ash in Levee Embankment Construction Using Geo-Composite Filter Media for the Protection of Cultivable Land Against Flooding
		Rajesh Mondal, Dipankana Bhattacherjee

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KEYNOTE SESSION 2: Day 2 (5th Dec), 12:30 PM (IST)
Chair and Rapporteur: Prof. Pinakshi Biswas

Prof. Suhana Binti Koting
Universiti Malaya

Invited talk on "Utilization of Waste Materials in Asphalt Mix"

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SESSION 3: Day 2 (5th Dec), 02:30 PM (IST)

Application of GIS techniques for crop management

Chair: Prof. Sujata Biswas. Rapporteur: Dr. Debojyoti Pandit

S. No.	Paper Id.	Title and Name of the Authors
1	27	Geo-Economic Evaluation of Storage Infrastructure and Agricultural Output in Madhya Pradesh
		Sumit Parmar, and Mohanasundari Thangavel
2	34	Estimation of Crop Evapotranspiration Using Remote Sensing Based Dual Crop Coefficient Method
		Simon Naguri, Sneha Murmu, Sujata Biswas
3	35	Crop Classification Using Sentinel-2 Multispectral Data on Google Earth Engine: A Case Study in Birbhum District, West Bengal
		Bittu Kumar, Sneha Murmu
4	42	SmartSoil: Soil Suitability Prediction using Machine Learning Models for Structural Integrity
		Pervela Hemanth, Rishab Antosh B, Vasugi V, Sankar Pariserum Perumal

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KEYNOTE SESSION 3: Day 3 (6th Dec), 10:30 AM (IST)
Chair and Rapporteur: Dr. Lingampalli Sai Vinay

Prof. Pennan Chinnasamy
CTARA, IIT Bombay

Invited talk on "Engineering Nature-based solutions for Reducing Climate Change Impact on Small and Marginalised Farmers in India"

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SESSION 4: Day 3 (6th Dec) 12:30 PM

Water Resources Management in Agriculture

Chair: Prof. Anirban Gupta. Rapporteur: Dr. Vineet Srivastava

S. No.	Paper Id.	Title and Name of the Authors
1	9	Analyzing Agricultural Drought and Land Surface Temperature with LULC in the Manipur River Basin
		Sochanphi Kashung, Thiyam Tamphasana Devi
2	15	Streamflow Prediction of Jaldhaka River Catchment using Decision Tree Based Ensemble Machine Learning Techniques
		Tamal Patra, Deep Roy, Sujata Biswas
3	28	Random Forest Yield Prediction for Tur Crop Using Climatic Indices and Dimension Reduction Techniques
		Shylesh R, Aparna Gale, Shailesh Rao, Krupesha D
4	37	Comparative Assessment of Markov Chain Model Variants for Stochastic Rainfall Simulation toward Climate Resilient Agricultural Water management
		Payel Biswas, Ujjwal Saha
5	40	Assessment of Groundwater Quality Parameters using Clustering Algorithms and Machine-Learning Approaches: A Review
		Bal Gopal Guru, Ashutosh Rath, Purnendu Mishra