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| **ICSTA 2023 Day 01: 19th December, 2023, Auditorium # 07 Biswa Bangla Convention Center** | | | | |
| **Paper ID** | **Program/Presentation** | **Time** | **Session** | **Session Chair** |
| -- | **Inauguration Session** | **09:30-10:40** | -- | **Chief Guest**  **Shri S Krishnan**  IAS, Secretary, MeitY |
| -- | **Key Note #1** By Prof. Ganesh Bora Fayetteville State University | 11:00-11:20 | -- | **Prof Rajib Bandyopadhyay**  Department of Instrumentation and Electronics Engineering, Jadavpur University |
| -- | **Key Note #2** By Prof. Anupam Chattopadhyay Nanyang Technological University | 11:20-11:40 | -- |
| -- | **Key Note #3** By Dr. Sajid Nisar  Kyoto University of Advanced Science | 11:40-12:00 | -- |
| **15** | A Machine learning-based model with Graphical User Interface for draft prediction of Mouldboard ploughing in sandy clay loam soil | 12:00-12:15 | **1** | **Dr. Aloknath De** Chairman, NSC, MeitY, AgriEnICS Program and CEO, Cyber-Physical Systems Co. |
| **17** | Detection of adulterated black pepper powder using a smartphone | 12:15-12:30 | **1** |
| **20** | Development of an ANN Integrated Streamlit Web App for Estimating Soil Compaction beneath Agricultural Tyre | 12:30-12:45 | **1** |
| **39** | Identifying Prawn Disease using Improved CNN | 12:45-13:00 | **1** |
| **42** | A Comparative Study of Feature Detection and Description Algorithms for Computer Vision Applications: Assessing Accuracy and Computational Efficiency | 13:00-13:15 | **1** |
| **49** | Chili Quality Estimation Using YOLOv8: A Deep Learning Approach | 13:15-13:30 | **1** |
| **--** | **Key Note #4** By Dr. Mohamed Rawidean Mohd Kassim Malaysian Institute of Microelectronic Systems | 14:30-14:50 | **--** | **Prof. Amlan Chakrabarti**  Senior Professor. University of Calcutta |
| **--** | **Key Note #5** By Dr Matthew Burnett  University of KwaZulu-Natal | 14:50-15:10 | **--** |
| **66** | Digital Soil Health Card app: a geo-smart solution for site specific management of soil fertility towards sustainable agricultural health in India | 15:10-15:25 | **3** | **Dr. R N Chatterjee** Director, ICAR-Directorate of Poultry Research, Hyderabad |
| **79** | STN-FRCNN: Spatial Transformer Network augmented Faster R-CNN network for crop disease classification | 15:25-15:40 | **3** |
| **86** | Sentinel-2 derived indices to understand rice vegetation dynamics at pixel level | 15:40-15:55 | **3** |
| **6** | Towards Zero Hunger: A Platform for Sustainable Food Distribution and Collaboration in Achieving the United Nations’ Sustainable Development Goal | 16:15-16:30 | **5** | **Dr. Swarnil Roy** Chairperson, IEEE SSCS KOLKATA CHAPTER. Assistant Professor, Meghnad Saha Institute of Technology. |
| **76** | Estimation of chlorophyll, nitrogen, and magnesium in green leaf by a computer vision based in-situ biosensing device: Validation & Interim Analysis | 16:30-16:45 | **5** |
| **80** | An Integrated Framework for Shrimp Detection, Tracking, Counting, andBehavioral Analysis Using YOLOv8 and Deep Learning based computervision model | 16:45-17:00 | **5** |
| **93** | Classification of Cardamom Samples Based on Concentration of Important Bio-chemical Constituents using InceptionV3 Driven Computer Vision System | 17:00-17:15 | **5** |
| **94** | MAGIC: Mobile App for Gender Identification of Chick from Vocalization Data Analysis | 17:15-17:30 | **5** |
| **107** | Mitigating Climate Change Impact Through Smart Agriculture - Soil Temperature Analysis and Forecasting | 17:30-17:45 | **5** |
| **134** | Mustard and Mung Bean Diseases and Pests Detection and Classification using Deep Learning Techniques | 17:45-18:00 | **5** |
| **147** | Leveraging Autoencoders for Accurate Plant Disease Diagnosis in the Face of Unbalanced Data | 18:00-18:15 | **5** |
| **ICSTA 2023 Day 01: 19th December, 2023, Hall# 02 Biswa Bangla Convention Center** | | | | |
| **Paper ID** | **Program/Presentation** | **Time** | **Session** | **Session Chair** |
| **124** | Analysis of Southeast Asian Forest Fire | 12:00-12:15 | **2** | **Dr. Nabarun Bhattacharyya** Member, NSC, MeitY, AgriEnICS Program Professor, Department of IT, Maulana Abul Kalam Azad University of Technology, West Bengal |
| **142** | Design of Ternary Combinational Circuits | 12:15-12:30 | **2** |
| **169** | Evaluate Lip reading using Deep Learning Techniques. | 12:30-12:45 | **2** |
| **176** | A review of Cloud computing for the NDVI | 12:45-13:00 | **2** |
| **8** | Machine Vision Based Detection and Removal of Foreign Materials during processing of Finished Tea | 15:10-15:25 | **4** | **Prof. Chandan Mazumdar** Professor, Department of Computer Science & Engineering Jadavpur University |
| **59** | AcoNeural: A Hybrid Neural Network Model for Predicting Daily Rainfall | 15:25-15:40 | **4** |
| **64** | Forecasting Summer and Winter Heat Loads of Buildings Using an Artificial Neural Network | 15:40-15:55 | **4** |
| **168** | A Novel Feature Extraction Model for the Detection of Plant Disease from Leaf Images in Low Computational Devices | 16:15-16:30 | **6** | **Dr Santanu Banik** Principal Scientist (Animal Genetics and Breeding)  National Dairy Research Institute (NDRI), Eastern Regional Station |
| **174** | Machine Learning Based Approaches for NPK Prediction and Model Validation in Agricultural Applications | 16:30-16:45 | **6** |
| **175** | Swin transformer-based disease identification model for Apple plants | 16:45-17:00 | **6** |
| **--** | **Panel Discussion on AgriEnIcs Grand Challenge projects** | 17:00-18:45 | **--** | **Dr. Aloknath De** Chairman, NSC, MeitY, AgriEnICS Program |

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| **ICSTA 2023 Day 02: 20th December, 2023, Auditorium (Hall# 07) Biswa Bangla Convention Center** | | | | |
| **Paper ID** | **Program/Presentation** | **Time** | **Session** | **Session Chair** |
| **--** | **Key Note #6** By Prof. Santosh Pitla University of Nebraska–Lincoln | 09:40-10:00 | -- | **Dr. A. R. Rao**  ADG (P.I.M), Indian Agricultural Research Institute |
| **--** | **Key Note #7** By Prof. John K Schueller University of Florida | 10:00-10:20 | -- |
| **--** | **Key Note #8** By Prof. Philip Bradford University of Connecticut | 10:20-10:40 | -- |
| **--** | **Key Note #9** By Dr. Sruti Das Choudhury University of Nebraska–Lincoln | 10:40-11:00 | -- |
| **69** | Mach-Zehnder interferometer mesh for improved refractive index sensing | 11:15-11:30 | **7** | **Prof. Bipan Tudu** Professor, Department of Instrumentation and Electronics Engineering Jadavpur University |
| **87** | Development of a Quartz Crystal Microbalance (QCM) Sensor for the Identification of β-Pinene in Cumin | 11:30-11:45 | **7** |
| **91** | Machine Learning Approach of Polyphenol Content Prediction for Fresh Tea Leaves using NIR Spectroscopy | 11:45-12:00 | **7** |
| **123** | Development of Simple and Sensitive CPE based Electrochemical Sensor for Detection of Quercetin | 12:00-12:15 | **7** |
| **125** | Machine learning based approach for detection and size estimation for on-field harvesting and sorting of Apple | 12:15-12:30 | **7** |
| **126** | A Novel Graphite Electrode Modified with Titanium Oxide Nanoparticles for the Detection of Theaflavin in Black Tea | 12:30-12:45 | **7** |
| **154** | Qualitative wheat age testing with relation to amylose content through image analysis-based web algorithm | 12:45-13:00 | **7** |
| **166** | An IOT Based Soil Moisture and pH Controller for Agricultural Lands | 13:00-13:15 | **7** |
| **--** | **Session by Springer**  Dr. Kamiya Khatter Senior Editor - Applied Sciences & Engineering Springer Nature India Pvt Ltd. | 14:00-14:30 | -- | -- |
| **30** | High Precision Water Level Sensor Design and Development for Wireless Sensor Network in Agricultural IoT (AIoT) | 14:30-14:45 | **9** | **Dr. B.K Das** Director, ICAR-Central Inland Fisheries Research Institute |
| **38** | IoT Based Smart Irrigation System | 14:45-15:00 | **9** |
| **92** | Homogeneous distribution of demand type: Is it a critical criterion for the districting problem? | 15:00-15:15 | **9** |
| **131** | AN EXPERIMENTAL STUDY ON LWT HASH ALGORITHMS TO SECURE IoT COMMUNICATIONS | 15:15-15:30 | **9** |
| **148** | Air Quality Monitoring System for Cement Industries | 15:30-15:45 | **9** |
| **150** | Weight Dynamics Analysis: A Novel Approach for Timely Growth Observation of Poultry at Commercial Open-Shed Broiler Farms | 15:45-16:00 | **9** |
| **--** | **Panel Discussion on**  **“Smart Agriculture: Food Security, Quality and Safety”** | 16:15-17:00 | -- | -- |
| **--** | **Panel Discussion** **on**  **“Doubling Farmers' Income: Technologies, Techniques and Tools”** | 17:00-17:45 | -- | -- |
| **--** | **Prize Distribution & Conclusion** | 17:45-18:15 | -- | -- |

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| **ICSTA 2023 Day 02: 20th December, 2023, Hall# 02 Biswa Bangla Convention Center** | | | | |
| **Paper ID** | **Program/Presentation** | **Time** | **Session** | **Session Chair** |
| **31** | Detection of Field Cabbages Using YOLOv8 Deep Learning Technique for an Electric Cabbage Harvester | 11:15-11:30 | **8** | **Dr. Manas Chanda** Secretary, IEEE ED Kolkata Chapter. Associate Professor and Head, Dept. of ECE, Meghnad Saha Institute of Technology, Kolkata. |
| **95** | Deciphering Distress: Stress Detection in White Leghorn Birds through Vocalization Analysis | 11:30-11:45 | **8** |
| **122** | CottonHusker: Deep Learning Enabled Cotton Picking Robot for Smart Agriculture | 11:45-12:00 | **8** |
| **135** | Use of Machine Vision Technology for Seed Quality Assessment in Millets: a case study in sorghum | 12:00-12:15 | **8** |
| **137** | Quadcopter Trajectory Tracking Control Analysis by Using PID and LQR controllers | 12:15-12:30 | **8** |
| **139** | A Novel Deep Learning framework for Real-Time Livestock Behaviour Detection in Surveillance Systems | 12:30-12:45 | **8** |
| **141** | What Did the Chicken Say?: A Multi-class Classification Method on Chicken Vocalisations | 12:45-13:00 | **8** |
| **164** | An Efficient Graph based Summarization Approach for Judicial Case Type Prediction using BERT | 13:00-13:15 | **8** |
| **75** | A Conceptual Enterprise Architecture for a decentralized distributed business environment using Blockchain | 14:30-14:45 | **10** | **Dr. Sayan Roy** Assistant Professor of Electrical and Computer Engineering in the School of Science and Engineering at the University of Missouri-Kansas City, USA |
| **105** | Network Coverage Improvement for Citizens Broadband Radio Service via New Priority Access License | 14:45-15:00 | **10** |
| **114** | Utilizing Artificial Intelligence in Chatbots to Combat Cybersecurity-Related Scams | 15:00-15:15 | **10** |
| **128** | A Framework for Direct Benefit Transfer for Fertilizer Distribution and Payment Using Blockchain | 15:15-15:30 | **10** |
| **159** | Study of Smart Agriculture using Agriculture-of-Things in Blockchain | 15:30-15:45 | **10** |
| **180** | A comprehensive study on the formulation and nutritional pro-file assessment of multigrain nutri powder | 15:45-16:00 | **10** |