

ONLINE WORKSHOP ON  
**ARTIFICIAL INTELLIGENCE BASED SMART AGRICULTURE FOR SUSTAINABLE  
DEVELOPMENT**

Organized by Centre for Artificial Intelligence and Machine Learning (CAIML)  
Indian Statistical Institute, Kolkata  
February 26-28, 2021

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**PROGRAMME**

**Day 1 | February 26, 2021**

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| 10.00 – 10.30 | Inaugural session   |
| 10.30 – 11.30 | <b>Introduction to smart agriculture</b><br><i>Prof. Himanshu Pathak</i><br><i>ICAR-National Institute of Abiotic Stress Management, Pune, Maharashtra</i>  |
| 11.45 – 12.45 | <b>Satellite remote sensing &amp; GIS applications for smart agriculture</b><br><i>Dr. Bimal K. Bhattacharya, ISRO, Ahmedabad</i>                           |
| 12.45 – 14.30 | Lunch break   |
| 14.30 – 16.30 | <b>Statistical methodologies for agriculture</b><br><i>Prof. Sabyasachi Bhattacharya,</i><br><i>Agricultural and Ecological Research Unit, ISI, Kolkata</i> |

**Day 2 | February 27, 2021**

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| 10.30 – 11.30 | <b>Introduction to sustainable agriculture with special reference to System for Rice Intensification</b><br><i>Prof. Pabitra Banik, Agricultural and Ecological Research Unit, ISI, Kolkata</i> |
| 11.45 – 12.45 | <b>Machine learning tools for agriculture: Classification</b><br><i>Dr. Ujjwal Bhattacharya,</i><br><i>CAIML &amp; Computer Vision and Pattern Recognition Unit, ISI, Kolkata</i>               |
| 12.45 – 14.30 | Lunch break   |
| 14.30 – 15.30 | <b>Machine learning tools for agriculture: Clustering</b><br><i>Dr. Malay Bhattacharyya,</i><br><i>CAIML &amp; Machine Intelligence Unit, ISI, Kolkata</i>                                      |
| 15.45 – 16.45 | <b>Remote sensing and GIS applications in agriculture and soil resource management</b><br><i>Dr. Aditi Sarkar, Dept. of Mining Engineering, IEST</i>  |

**Day 3 | February 28, 2021**

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| 10.30 – 11.30 | <b>AI in Practice for Agriculture: the current state-of-art</b><br><i>Dr. Abhishek Mukherjee</i><br><i>Agricultural and Ecological Research Unit, ISI, Giridih</i>            |
| 11.45 – 12.45 | <b>Machine learning tools for agriculture: Feature analysis</b><br><i>Prof. Nikhil R. Pal</i><br><i>CAIML &amp; Electronics and Communication Sciences Unit, ISI, Kolkata</i> |
| 12.45 – 14.30 | Lunch break   |
| 14.30 – 15.30 | <b>Design of experiments for Agriculture</b><br><i>Prof. Rita Saharay</i><br><i>Interdisciplinary Statistical Research Unit, ISI, Kolkata</i>                                 |
| 15.45 – 16.45 | <b>Drones for precision agriculture</b><br><i>Dr. Basudeb Bhatta, CAD Centre, Jadavpur University</i>   |
| 16.45 – 17.15 | Concluding remarks & certificate distribution   |