

**Online Mode Short Term Course & Faculty
Development Programme
On
Applications of Machine Learning Techniques in
Sustainable Technologies
(AMLST-2024)
24th - 28th January 2024**

Coordinators

Dr. Prasenjit Dey, Dr. Arnab Ghosh, Prof. Pravat Kumar Ray

Last date of the registration is 23rd January 2024

Registration Details:		Online Account Details:
Category	Online Registration Fee in INR	Account No: 10138951784
Research Scholars/ PG / UG Students	500/-	Account Name: CONTINUING EDUCATION NIT ROURKELA
Faculty from Engineering Institutes	600/-	IFSC No: SBIN0002109
Engineers from Industry and R&D Organizations	800/-	Branch: State Bank of India, NIT Campus Rourkela
No registration fee for students / staffs of NIT Rourkela		

Online Registration Form:

<https://docs.google.com/forms/d/1ucPtfcSm7t-M9I8MmwNleOyepUH6PJ896aliPtEIUGE>

Organized By

Dept. of Computer Science and Engg. and

Dept. of Electrical Engineering

National Institute of Technology Rourkela, Odisha - 769008

Applications of Machine Learning Techniques in Sustainable Technologies (AMLST-2024)

24th - 28th January 2024 at NIT Rourkela

Coordinators: Dr. Prasenjit Dey, Dr. Arnab Ghosh and Prof. Pravat Kumar Ray

Course Schedule

Day #1 (24 January 2024 Wednesday) INAUGURAL SESSION			
09:00 AM – 10:00 AM Chief Patron: Prof. K. Umamaheshwar Rao (Director, NIT Rourkela) Course Coordinators: Dr. Prasenjit Dey, Dr. Arnab Ghosh, Prof. Pravat Kumar Ray			
Day #1 (24 January 2024 Wednesday)			
Lecture Session 1: 10:00 AM – 11:30 AM	Lecture Session 2: 11:30AM – 1:30PM	Lecture Session 3: 3:00PM – 5:00PM	Industry Session 1: 5:00PM – 6:30PM
Title: Intelligent Computing and Applications Prof. Ganapati Panda, IIT Bhubaneswar	Title: Waste material classification using ML techniques Prof. Tandra Pal, NIT Durgapur	Title: Multi-Agent based Cyber-Physical System Dr. Dipayan Guha, MNIT Allahabad	Title: AI/ML in Software Development in Sustainability Dr. Prantik Chatterjee Senior Software Engineer at MathWorks PhD (CSE-IIT Kanpur) [Formal Verification & Machine Learning] Intel Research Fellow'22-23
Day #2 (25 January 2024 Thursday)			
Lecture Session 4: 09:30 HRS IST – 11:00 HRS IST	Lab Session 1: 11:00AM – 1:00PM	Lecture Session 5: 3:00PM – 5:00PM	Industry Session 2: 5:30PM – 7:00PM
Dr. Sujoy Saha, NIT Durgapur Title: Connected Societies: Societal Computing for Enhanced Disaster Recovery, Empowering Assistive Living, and Intelligent Environment Monitoring via IoT	Dr. Sujoy Saha, NIT Durgapur Title: Practical Applications of Societal Computing with Resource-Constrained Devices: A Hands-On Approach	Title: Linking of IoT Concept with Machine Learning Techniques in Sustainable Technologies Prof. Santos Kumar Das, SIIEE, FIE Associate Professor, Dept. of Electronics & Communication Engineering, National Institute of Technology Rourkela, Odisha-769008, India	Title: Technology Innovations for Sustainable Environment – with case studies of Renewable Energy and Regenerative Agriculture Dr. Bhushan Jagyasi Associate Director Technology Sustainability Innovation (TSI) Accenture, India
Day #3 (26 January 2024 Friday)			
Lecture Session 6: 09:30AM – 11:30AM	Lab Session 2: 11:30AM – 1:30PM	Lecture Session 7: 3:30PM – 5:30PM	Industry Session 3: 5:30PM – 7:00PM
Title: Explore ML applications in precision agriculture and resource optimization Dr. Prasenjit Dey, NIT Rourkela	Title: Use ML to predict Agricultural Yield in presence of impure farm data Mr. Rahul Mondal, SoA	Title: Forecasting of Solar Irradiance Using Ensemble Kalman Filter and Variable Leaky LMS Algorithms Prof. Pravat Kumar Ray, NIT Rourkela	Title: AI Empowers Your Plate: Building Sustainable Food Supply chains from Farm to Fridge Ms. Arthi Udayakumar, ML Engineering Senior Analyst, Quantum Technology Specialist, Quantum & AI R&D, Accenture Technology Innovation (NextGen Computing Group), India
Day #4 (27 January 2024 Saturday)			
Lecture Session 8: 09:30AM – 11:30AM	Lab Session 3: 11:30AM – 1:30PM	Lecture Session 9: 3:00PM – 5:00PM	Lecture Session 10: 5:00PM – 7:00 PM
Title: ML Applications for Sustainable Health Infrastructure Dr. Puneet Kumar Jain, NIT Rourkela	Title: Experimenting with Biomedical Signals using ML and Deep Learning Techniques. Dr. Puneet Kumar Jain, NIT Rourkela	Title: Online Health Monitoring of Rechargeable Batteries based on Artificial Neural Network Dr. Arijit Guha, NIT Rourkela	Title: Electric Mobility for Sustainable Development using AI/ML Dr. Chiranjit Sain, GKCIET Malda
Day #5 (28 January 2024 Sunday)			
Lecture Session 11: 09:00AM – 11:00AM	Lecture Session 12: 11:00AM – 1:00PM	Lecture Session 13: 3:00PM – 5:00PM	
Title: Intelligent Power Management Scheme for Microgrid Application Dr. Arnab Ghosh, NIT Rourkela	Title: Data Science as Engineering for Global Sustainability Prof. Yaduvir Singh, EED, HBTU, Kanpur, UP	Title: Climate Modeling and Generative AI: Predicting and Adapting to Environmental Changes Dr. Kaustuv Nag, IIIT Guwahati	
Day #5 (28 January 2024 Sunday) VALEDICTORY SESSION			
5:00PM – 5:15PM Course review, Feedback, Valedictory Session, and Vote of thanks by Course Coordinators Course Coordinators: Dr. Prasenjit Dey, Dr. Arnab Ghosh, Prof. Pravat Kumar Ray			