Institute of Actuaries of India
Statutory body established under an Act of Parliament

Unit No. F-206, 2nd Floor, F Wing, Tower II, Seawoods Grand Central,
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25 April 2023

13th Webinar on Data Science and Analytics

The Institute of Actuaries of India (IAI) is pleased to announce 13th Webinar on Data Science and Analytics hosted by the Advisory Group on Data Science and Analytics.

> Date: **13th May 2023, Saturday**
>
> Time: **3:00 pm to 5:00 pm, IST**
>
> Topic: **Data Insights Derived from Satellite Imagery Using Machine Learning Techniques**

Abstract: Satellite-based remote sensing is increasingly used for earth observations such as land use and land cover change, and agricultural and meteorological scenarios at the global scale. In recent times, several applications from remote sensing imagery have been developed, taking the advantage of evolving technologies like AI and machine learning. This technology is efficient for analyzing remote sensing data at the finest resolution and producing accurate and more detailed insights for risk assessment.

Supervised classification and object detection are the primary techniques of machine learning used in remote sensing. Deep learning, convolutional neural networks, and decision tree-based algorithms are combined with spatial data in order to perform change detection, spectrum analysis, and to identify objects (for example, swimming pool, roof geometry, delineation of high-rise clusters).

This webinar presents data insights from remote sensing for various applications using machine learning techniques. We would also be discussing how this information helps in accurate risk assessment for pricing, or for the purchase of additional risk coverage.

Target Audience: Fellows, Associates, Affiliates, Students across domains, All the analytics & technology professionals, CTO's, CRO's, Consultants, Academicians.

Speakers:

1. **Dr. Anudeep Sure, Lead Modeler, Spatial Modeling, Moody's RMS :**

   Dr. Anudeep Sure (PhD) has been working in the field of remote sensing for more than a decade now. His expertise lies in understanding land use land cover, meteorological and agricultural changes spatiotemporally using satellite remote sensing in combination with ground-based measurements and model-based observations. He has worked on developing numerous data products using upcoming machine learning technology in the land use land cover development, natural catastrophic damage assessment and agricultural domain, etc. His proficiency is in creating links between remote sensing and machine learning and cloud-based platforms enabling extensive geospatial analysis. He has completed his doctoral research from the Indian Institute of Technology (IIT) Kanpur in understanding soil moisture using remote sensing and got his master's in specialization in water resources from the Indian Institute of Remote Sensing (IIRS), ISRO.

2. **Mr. Naveen Singh, Director, ESG & Climate Risk Service, Moody's RMS :**
   Naveen is a seasoned BFSI professional with 20 years of experience in enterprise risk management and sustainable finance. He has managed multiple risk and regulatory transformation programs across the globe for Insurers, Reinsurers and Banks in his previous roles. He has strong belief that finance has a leading role to play in combating climate change and establishing sustainability. He played a key role in capability building, solution development and integration of ESG risks into client's existing risk governance frameworks across the globe. He has strong expertise in various existing and emerging global risk and ESG frameworks in the BFSI domain. Naveen has master's degree in business management from Pune University, FRM and associateship from CII London and Insurance institute of India.

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3. **Ms. Tulika Giri, Senior Manager, Solutioning & New opportunities, Moody's RMS:**

Tulika is a nearly qualified Actuary and Masters in Mathematics with 15 years of experience in insurance industry, initial 9 +years in actuarial domain working with Life, P&C and pension sectors. In her recent roles, she has led digital transformation analytics projects across insurance operations. She has contributed for white paper for Salvage optimization through predictive analytics. She has delivered analytics project like delinquency reductions, brokers analytics to optimize underwriting etc. In her current role with MA RMS, she is engaged in NAT CAT, Climate Change and ESG offerings that can be leveraged by insurance and non-insurance sectors.

Moderator: Mr. Manoj Kumar, Secretary, Advisory Group on Data Science and Analytics

Program Schedule:

Sr. No	Sessions	Speaker	Time
1	Introductory Address	**Mr. Heerak Basu**, Chairperson, AGDSA, IAI	03:00 pm to 03:05 pm
2	Presidential Address	**Mr. R Arunachalam**, President, IAI	03:05 pm to 03:10 pm
3	Data Insights Derived from Satellite Imagery Using Machine Learning	**Dr. Anudeep Sure**, Lead Modeler, Spatial Modeling, Moody's RMS **Mr. Naveen Singh**, Director, ESG & Climate Risk Service, Moody's RMS **Ms. Tulika Giri**, Senior Manager, Solutioning & New opportunities, Moody's RMS	03:10 pm to 04:55 pm
4	Closing Remarks & CPD Test	**Mr. Manoj Kumar**, Secretary, Advisory Group on Data Science and Analytics	04:55 pm to 05:00 pm

Registration fees excluding GST (INR)

IAI Students & Associates	IAI Affiliates & Fellows	Non Members
750	1000	1000

Registration link: https://bit.ly/3R84faU

CPD Credit: as per APS9 (Version 4): 2 hrs (Technical – Any one practice Area)

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