



# The Actuary India

Magazine of the Institute of Actuaries of India

April 2023

ESG, INVESTMENTS

## GREEN BONDS – PART 1

GRAPHIC NOVEL

## THE FUTURE ACTUARY

INSURANCE; PRODUCT DESIGN

## DESIGN THINKING IN INSURANCE: NEED OF THE HOUR

22<sup>ND</sup> GCA

## PLENARY SESSIONS: #1 - #10





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**Green bonds – Part 1**

**Arundhati Ghoshal's**, two-part series explains green bonds and sustainable finance, as ESG takes precedence for companies. Part one introduces green and sustainable bonds.

**Design thinking in insurance: Need of the hour**

Improving insurance penetration in India was a major takeaway from GCA 2023.

**Venkatesh Ganapathy** explores how design thinking can help achieve this vital goal.

**The great actuarial reshuffle**

This article provides a summary of the results from "**The Great Indian Reshuffle**" survey conducted last year. The results aim to give employers and employees some insights into the current hiring trends in the Indian actuarial industry.



**Events**

Get a synopsis of IAI events and webinars reported by various dedicated actuaries and students.

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using advanced analytics

## Culture

### The Future Actuary

Sequel to the **'The Last Actuary'** Cauchy, Chi & Gauss of Createlife Insurance develop Gauss 2.0 while battling a malevolent entity that's taken over D.R.A.G.O.N. Join the trio's thrilling journey through the captivating narration and imagery of **Devadeep Gupta**.

## Humour

A light-hearted take on the hopes, trials, tribulations and perhaps even foibles of everyday actuaries in their everyday lives.





This is my second celebratory post – the first was to share the joy of completing 100 days of the new magazine, and now it's the completion of a successful year. Not only am I super excited to write this, but I can't help reflecting on being lucky to get to write the editorial for both of these landmark months!

One year ago, we launched the new version of The Actuary India magazine, and it has been a wonderful journey so far. We reached out to you, the actuarial community, for articles and ideas, and we have not been disappointed! We have received articles on a wide range of topics and explored a number of formats to present them. To sustain the momentum we built together and to make this more than a magazine into a platform for the Indian actuarial community to connect, share ideas and have meaningful discussions, we urge you to continue to support us and participate in bringing out each issue.

April is a busy month for most of us working in India with the close of the financial year. This month we have a refreshing new topic – design thinking to give you a break from pouring over financial statements and regulatory submissions. Also out are the results from a survey we ran late last year on actuarial recruitments – the Great Actuarial Reshuffle! Out of the 200+ responses we got from you, we tried to put together insights on employer and employee perspectives and expectations.

The GCA, the first in-person GCA after the pandemic, was a great opportunity for us to renew our connections and make new ones and most of us continue to speak or reminisce about this mega-actuarial event for a considerable time afterwards. So, here, in April we have a recap with reports of the plenary sessions that we got to attend at the GCA 2023.

Finally, to help unwind (pun intended!) there is humour and a new book! After the success of our very first actuarial graphic novel, we have its sequel now, "The Future Actuary" – as with the last edition, we are revealing this story in parts, so stay tuned for more in the upcoming months!

Rajeshwarie Iyer

**Editor, The Actuary India**

Magazine of the Institute of Actuaries of India

# **Announcements**



# Institute of Actuaries of India

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Unit No. F-206, 2nd Floor, F Wing, Tower II, Seawoods Grand Central,  
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5th April, 2023

## 39<sup>th</sup> India Fellowship Seminar (IFS)

DATE	23 <sup>rd</sup> & 24 <sup>th</sup> June, 2023 (Friday & Saturday)
VENUE	TBC, Mumbai
PROGRAMME TYPE	Non-Residential
CPD CREDIT	Total 12 hours: 6 hrs. Technical (Any two practice areas - 3 hrs. each) & 6 hrs. Professional as per APS 9 (ver. 4)
PARTICIPATION FEE	<b>Rs. 15,000 + 18 % GST</b> (Indian Rupees Fifteen Thousand Plus 18% GST) for IAI Fellow members. <b>Rs. 15,000 (No GST)</b> (Indian Rupees Fifteen Thousand Only) for IAI Students & Associate members. <b>Please login to your account on IAI website to Register &amp; pay online (Kindly ensure that your annual membership is up to date for the year 2023-24)</b>
PARTICIPANTS	The programme is open to: 1) All IAI Members for CPD requirement under APS 9 Ver. 4; 2) Student & Associate Members who have passed all the examinations or are close to qualifying as FIAI for fulfilling requirement for admission as FIAI.
REGISTRATION AND CONDITIONS	<b>LAST DATE OF REGISTRATION</b> Students & Associates (those participating for admission as FIAI): 20 <sup>th</sup> May 2023 Fellows (those participating for CPD purpose): 20 <sup>th</sup> June 2023 Login to your account on IAI website and register. On Successful completion of registration you will receive a receipt from Noreply@actuariesindia.org
NOTES	<ol style="list-style-type: none"><li>1. The session on both the days will end at 5 p.m. Marking of attendance will be compulsory at the end of day on both days for granting CPD credits on the respective days.</li><li>2. Those participating for admission as FIAI will be subject to assessment of their performance by an Assessment group consisting members of Advisory Group on PEC. The decision of the Assessment group will be final. The successful assessment will be valid for 2 years</li><li>3. Few fellows will be assigned roles and responsibilities as a Guide or Chairing a session, by the Advisory Group on PEC and this will be communicated in advance.</li><li>4. Registration will be on first come - first served basis.</li></ol>
DRESS CODE	Formal

**Point of contact-** Paresh Shetty | **Email:** [paresh@actuariesindia.org](mailto:paresh@actuariesindia.org)



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## **CB3 December 2023 Examination – Registration announcement**

### **Introduction:**

CB3: Business Management Online Module involves IAI student members taking part in a ten days' online business game and submitting seven completed exercises. Students who take the online examination will be required to do advance study involving online tutorials, and also an online examination following the ten days' business game.

### **What does this subject cover?**

The main content of this practical exam involves looking at:

- Industry developments and challenges - an overview covering all practice areas.
- Strategic thinking - case studies and problem solving techniques.
- Business game - supporting the learning objectives of the course.
- Professionalism and ethics - principles and case studies.
- Personal development - an overview of lifelong learning and work based skills.
- Legal principles.

### **Who can take the CB3 course?**

Registrations are open to all the **Students** on **First Come First Served Basis**.

### **When is the right time to register for CB3 course?**

We advise that you take CB3 course within 8 to 15 months of joining as a student member at IAI. This is so that you have enough time to gain the necessary business and workplace experience to help you get the most out of the CB3 exam.

### **Key Dates:**

- 1. Online Registration starts from 29<sup>th</sup> April 2023, Saturday from 3.00 P.M.**
- 2. Last date of Registration will be 22<sup>nd</sup> August 2023, Tuesday till 3.00 P.M.**
- 3. Login Details for study material and case studies will be provided on 26<sup>th</sup> August 2023.**
- 4. Last date to submit the pre course assignment is 18<sup>th</sup> November 2023 up to 3.00 P.M.**
- 5. Business Game:** Business game dates will be communicated to you via confirmation email.
- 6. Online Examination will be held from 1<sup>st</sup> December 2023 from 3:00 P.M. onwards.**

Batch size will be of maximum **288** students on First Come First Served Basis.

For more details visit at [www.actuariesindia.org/about-cb3](http://www.actuariesindia.org/about-cb3)

For any examination related queries email us on [exam@actuariesindia.org](mailto:exam@actuariesindia.org)

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25 April 2023

## 13<sup>th</sup> Webinar on Data Science and Analytics

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

Date: 13<sup>th</sup> 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, Model Development, 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.

Visit us at: [www.actuariesindia.org](http://www.actuariesindia.org)

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April 2023



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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)

Point of contact- Paresh Shetty | Email: [paresh@actuariesindia.org](mailto:paresh@actuariesindia.org)

Institute of Actuaries of India

## Our Team



**Kunj Behari Maheshwari**  
Chief editor

Kunj Behari Maheshwari is a partner at Willis Towers Watson Actuarial Advisory LLP and the Head of Life Insurance consulting for India and Sri Lanka within WTW's Insurance Consulting and Technology division.

He is passionate about actuarial work, research and volunteers regularly towards initiatives at the IAI. He enjoys swimming and being outdoors.



**Prakhar Mody**  
Editor

Prakhar is a qualified actuary with extensive experience in financial risk management and technology transformations having worked with banks, insurers, financial institutions and corporate clients across the globe.

He is also an avid gamer with an interest in fictional novels and trekking.



**Anirudh Bansal**  
Editor

Anirudh is the founder of InsurTech Actuary and is a General Insurance Actuary. He is passionate about microinsurance, innovation and InsurTech startups.



**Rajeshwarie Iyer**  
Editor

Rajeshwarie Iyer is working as the VP, Head Specialty Bangalore for SwissRe Global Business Solutions. She is a Fellow of the Institute of Actuaries of India and the Institute and Faculty of Actuaries UK. Rajeshwarie has worked in General Insurance in reserving, pricing and regulatory reporting and is currently underwriting reinsurance.

She volunteers actively for the profession and is a classical dancer who enjoys swimming, blogging and reading.



**Kathan Jain**  
Editor

Kathan works at Ankolekar & Co. as a senior associate. He's obsessed with food and enjoys binge-watching & solving puzzles in his free time.



**Ekta Mehta**  
Editor

Ekta Mehta is an associate actuary currently involved in with-profits and experiences analysis-related tasks throughout the year. She spends her free time solving large-sized jigsaw puzzles, volunteering in several actuarial capacities and helping young adults to enhance their communication, speech & drama skills.



The Institute of Actuaries of India (IAI) is a statutory body established under The Actuaries Act 2006 (35 of 2006) for regulating the profession of Actuaries in India. The provisions of the said Act have come into force from the 10th day of November 2006, in terms of the notification dated 8th November 2006, issued by the Government of India in the Ministry of Finance, Department of Economic Affairs.

The Actuary India is the flagship magazine of the IAI that has been in publication for over two decades. We aim to provide our members and the larger actuarial community a platform to connect, exchange views and promote thought-leadership and research beneficial to the profession.