



MASA

Malaysian Actuarial Student Association

ActuaRead

A Newsletter by Malaysian Actuarial Student Association

Vol. 14 - December 2023

Affiliated Actuarial Societies:



Official Graduate Career Partner:

gradmalaysia



ABOUT US

Founded in October 2018, the Malaysian Actuarial Student Association (MASA) has been actively developing actuarial science students' potential in Malaysia and empowering them to be the next generation of actuarial leaders.

As of January 2022, MASA has over 900 active members from both public and private universities nationwide. MASA has also affiliated with actuarial societies from 11 universities in Malaysia.

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MASA STUDENT REPRESENTATIVE COUNCIL

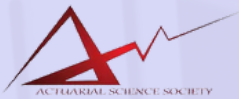
(AS OF DECEMBER 2023)



BRYAN LIM POH ENG
University of Southampton Malaysia



ETHAN LEE JIA HUA
Sunway University



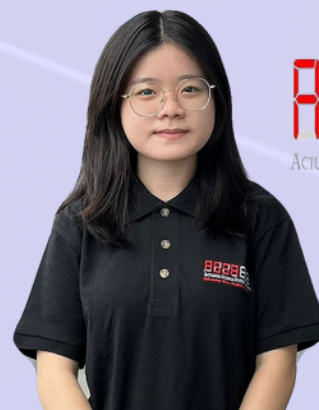
LAW ZHE WEI
University Tunku Abdul Rahman



YAP WEI HAN
Taylor's University



MUHAMMAD SYADDAD
Universiti Kebangsaan Malaysia



ONG WIN JIA
UCSI University

MASA STUDENT REPRESENTATIVE COUNCIL

(AS OF DECEMBER 2023)



Pearlyn Tee Pei Lin
UHeriot-Watt University Malaysia



TAN JIE FEI
Asia Pacific University



TAN KAI ZIANG
Universiti Malaya



MUHAMMAD SYHRIL BIN JAMSURI
Universiti Sains Islam Malaysia



MUHAMMAD HANIF HUSAINI BIN ADNAN
Universiti Teknologi MARA (UiTM) Shah Alam

MASA UPCOMING EVENTS

We are thrilled to unveil our two flagship events scheduled for 2024: MASA Hackathon and MASA Actuarialogy. To ensure the smooth progress of these activities, MASA actively recruited event committees for these two events. We had sought passionate individuals with planning and organizational skills to fill a variety of key positions, including Chairperson, Vice Chairperson, Corporate Relations Officer, Marketing Officer, and Logistic Officer. We firmly believe that the chosen event committees will enhance their actuarial journey, bolster their soft skills, and expand their professional network by being an integral part of MASA.



MASA Actuarialogy 2024

MASA Actuarialogy 2024 presents an exciting Half-Day Physical Career Fair. This event aims to create a dynamic platform for aspiring actuarial students, fostering exposure to the working industry while concurrently establishing connections between students and prospective employers. The fair, open to the public, extends invitations to all members of MASA and actuarial student societies. Breaking away from the conventional focus on insurance companies, this career fair is open to a diverse range of companies, including consulting firms and accounting firms. MASA envisions a vibrant event, inviting 15-20 companies, contingent on the venue's capacity. The day will be enriched with engaging elements such as career talks, hot seats, and conferences, offering participants a comprehensive experience. Join us for an insightful exploration of the actuarial landscape and the myriad opportunities it holds.

MASA UPCOMING EVENTS

MASA Hackathon 2024

MASA Hackathon 2024 is a competition where participants in groups of three to five apply programming skills and data analytical skills to present a business proposal based on the dataset they are given. The main objective of our Hackathon is to encourage students to apply actuarial knowledge and analytical skills to solve real-world problems and challenges related to risk assessment using R programming. The Hackathon consists of a Workshop, a Preliminary Round, and a Grand Final.

In the dynamic field of actuarial science, the imperative role of data analytics and statistical modelling in comprehending and mitigating risk is evident. The evolving complexity of demands for precise predictive modelling underscores the



necessity for actuarial science students to remain abreast of contemporary advancements. In this context, the utilization of R programming assumes paramount significance and R has emerged as a powerful and versatile choice in today's data-driven world. R's open-source nature, extensive community support, and adaptability make it a relevant and valuable tool for actuarial professionals.

All in all, we encourage everyone to stay tuned for these highly anticipated flagship events that will bring tremendous benefits for the actuarial science student community.

MASA PAST EVENTS

MASA Career Series 2.0: Virtual Industrial Visit - Walk into Nicholas Actuarial Solutions (NAS)



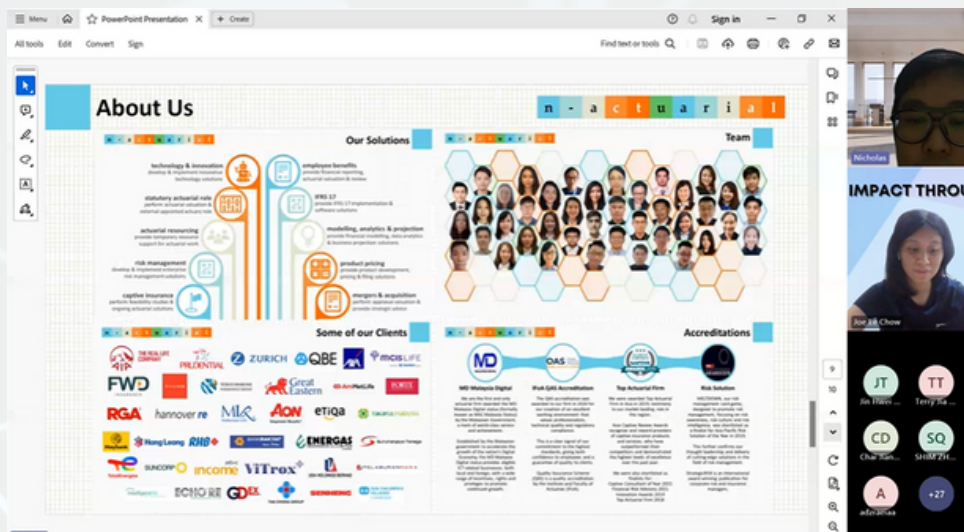
Date: 29 September 2023
Time: 8.00 - 9.30PM
Platform: Microsoft Teams

In continuation of our commitment to providing students with a comprehensive understanding of the dynamic landscape within the insurance industry, MASA organised a 1.5 hour sharing session titled "MASA Career Series 2.0: Virtual Industrial Visit - Walk into Nicholas Actuarial Solutions (NAS)." This event aimed to bridge the gap between theoretical knowledge and practical insights, offering attendees a unique opportunity to explore the intricacies of actuarial consulting.



MASA PAST EVENTS

The event featured Mr. Nicholas Yeo, an esteemed businessman and actuary with over 15 years of experience in the field. As the founder of NAS, Mr. Yeo's extensive knowledge spans various domains, including life insurance, family takaful, general insurance, and insurtech startups.



The session commenced with an insightful overview of actuarial consulting firms, shedding light on their daily operations, strategic considerations, and the role they play in the insurance industry. Attendees had the opportunity to gain a nuanced understanding of the major differences between working in a consulting firm and an insurance company, providing valuable insights for career considerations. The event also offered participants a glimpse into potential career paths within actuarial consulting, emphasizing the diverse opportunities available in this dynamic sector. Besides, Mr. Nicholas Yeo also shared valuable insights into his team of consultants, detailing their qualifications and areas of expertise. This offered attendees a glimpse into the collaborative and multidisciplinary nature of actuarial consulting. He shared compelling real-life case studies and projects undertaken by NAS, outlining the challenges faced, the strategic solutions implemented, and the ultimate outcomes achieved. This provided a practical application of actuarial principles in the consulting realm.

MASA PAST EVENTS

SRC Onboarding

Date: 13 October 2023

Time: 8.00 - 10.00PM

Platform: Microsoft Teams



On October 13, 2023, MASA convened a Microsoft Teams meeting from 8:00 pm to 10:00 pm with the objective of introducing and outlining the responsibilities of new Student Representative Council (SRC) members for the term 2023/2024. The session included an overview of SRC Terms and Reference to ensure a collective understanding among participants.

A session highlighted the MASA National Calendar, emphasising key dates and events. MASA presented a comprehensive annual plan, detailing strategic goals and initiatives for the upcoming year. The discussion extended to the platform for affiliated societies to promote their events within MASA. Representatives from affiliated societies also shared their annual plans for the upcoming year.

A portion of the meeting focused on encouraging collaboration between MASA and affiliated societies, exploring opportunities for joint events. The meeting concluded with a photography session and has set a positive tone for the upcoming term.

MASA PAST EVENTS

MASA Data Workshop 1.0: Power Up with Power BI

Date: 21 & 28 October 2023

Time: 2.00 - 5.30PM

Platform: Microsoft Teams

MASA DATA WORKSHOP 1.0:

INTRODUCING OUR SPEAKER

- Trained in machine learning and statistical methods for Fast-Moving Consumer Goods (FMCG), Airline, Manufacturing,
- Experience programming in Python, R, and Dataiku
- Familiarity with big data tools such as SAS, Hadoop, Hive, and Spark
- Research Scientist at UM Medical Center (Unsupervised Brain Research) & Top Glove Group Engineering (Glove Defect Detection)

AVINNAASH SURESH
Senior Data Scientist, Maybank

Affiliated society:

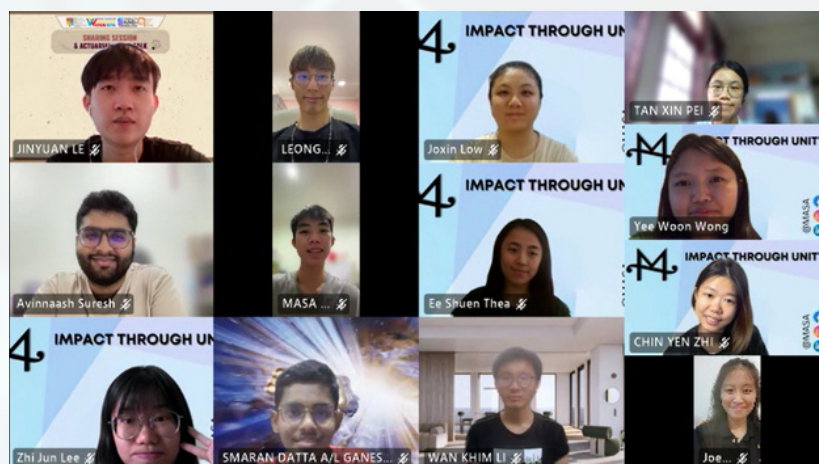
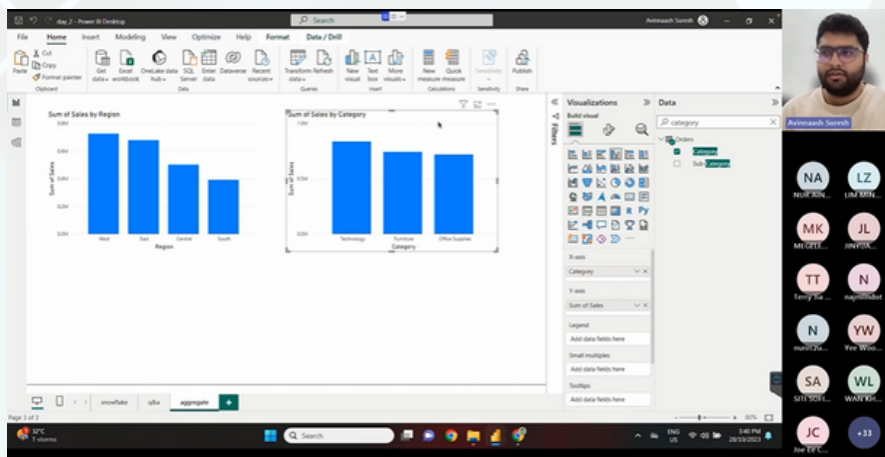
social media icons: @MASA, general@masassociation.org, www.masassociation.org

In response to the evolving landscape of the actuarial field, marked by rapid technological advancements, (MASA) organised a transformative two-day workshop titled "MASA Data Workshop 1.0: Power Up with Power BI." This workshop aimed to empower future actuaries with essential skills to navigate the industry's changing dynamics and explore innovative career paths beyond traditional trajectories.

The workshop was privileged to host Mr. Avinnaash Suresh, a passionate and resilient Data Scientist with diverse experiences in Fast-Moving Consumer Goods (FMCG), airline, manufacturing, telecommunications, and education. As a PhD researcher in Statistics and Mathematics at Universiti Malaya, Mr. Suresh has applied his extensive machine learning and statistical methods training to creatively solve complicated problems in various industries.

MASA PAST EVENTS

The workshop commenced with a foundational overview of Power BI, providing participants with a clear understanding of its capabilities and applications within the actuarial domain. Participants were guided through the crucial steps of loading and transforming data, laying the groundwork for effective data analysis. Then, the workshop also delved into the art of data visualisation, emphasising the creation of impactful dashboards for conveying complex information in a clear and concise manner. A dedicated session was also conducted to introduce participants to Data Analysis Expressions (DAX) in Power BI, enabling them to harness the full potential of this analytical language. The intricacies of data manipulation and modelling were also explored, providing participants with the skills necessary to derive meaningful insights from raw data. Last but not least, the workshop concluded with insights into seamlessly integrating Power BI with Excel, offering participants a holistic understanding of how these tools can work synergistically.



MASA PAST EVENTS

MASA Day: Bond & Unite



The poster features the MASA logo at the top left, followed by the text 'MASA day' in a stylized font and 'BOND & UNITE' below it. A table lists the event's itinerary with time slots and activities. At the bottom, there are logos for affiliated societies and contact information for MASA.

TIME	ITINERARY
12.30p.m.-01.00p.m.	Registration
01.00p.m.-01.20p.m.	Opening & Ice Breaking
01.20p.m.-03.45p.m.	Games Session
03.45p.m.-05.45p.m.	Movie Time
05.45p.m.-06.00p.m.	Pricegiving, photography & closing

Affiliated society:
@MASA
general@masassociation.org
www.masassociation.org

Date: 16 December 2023

Time: 1.00 - 6.00PM

Venue: Universiti Malaya

MASA organized a team bonding event titled “MASA Day: Bond & Unite” on 16 December 2023 at Universiti Malaya. The event brought together MASA members from different universities for a day filled with camaraderie and exciting activities.

Icebreaking Session

To kick off the day, participants were divided into five groups and had a lively ice-breaking session. The group members introduced themselves to get to know each other better. All groups also came up with their own group name and slogan to develop a strong sense of identity and unity.



MASA PAST EVENTS

Station Games

The heart of the event lay in the station games, designed to challenge both teamwork and individual skills. There are five stations in total, each with 20 points, and the group with the most points will be the winner of the day.



Station 1: Music Relay

In this game, group members need to line up and everyone must have water in their mouths. The first member listens to the song, then hums it to the next person, and so on. The last person needs to guess the song played.



Station 2: Zoom Hunt Challenge

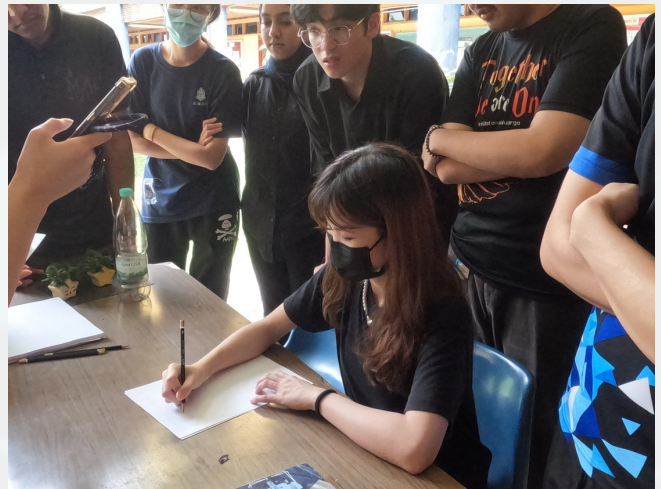
The group will be given 20 enlarged pictures of objects around the venue, and they need to identify each of them.



MASA PAST EVENTS

Station 3: Drawing Memory

The gamemaster will first read out 25 objects quickly, then the group members have to draw the objects within the given time accurately.



Station 4: Eat With Face

Group members are challenged to catch the biscuit from their faces with their mouths, one by one. If someone drops the cookie, they must line up again and let the next person challenge.

Station 5: Draw Relay

The first group member has 15 seconds to draw a phrase, such as "a monkey wearing headphones," and shows it to the second member for 5 seconds. The second member then has 15 seconds to draw the same thing, or even improve it, and show it to the next member, and so on. The last group member has to guess the phrase.



MASA PAST EVENTS

Winner: Group 5

Congratulations to the winner, Group 5, who displayed excellent teamwork and individual skills throughout the station games.



Movie Time

The event concluded with a 2-hour movie session featuring "Gifted" (2017). It is a heartwarming and emotionally resonant film that delves into the complexities of familial relationships and the choices parents make for their children. The movie combines elements of drama, humour, and a touch of courtroom tension as it unfolds the journey of a family grappling with the implications of a child prodigy.

Group Photo

"MASA Day: Bond & Unite" was a resounding success, fostering connections among MASA members and creating lasting memories. The event embodies a spirit of unity, collaboration and fun, reflecting the vibrant community within MASA.

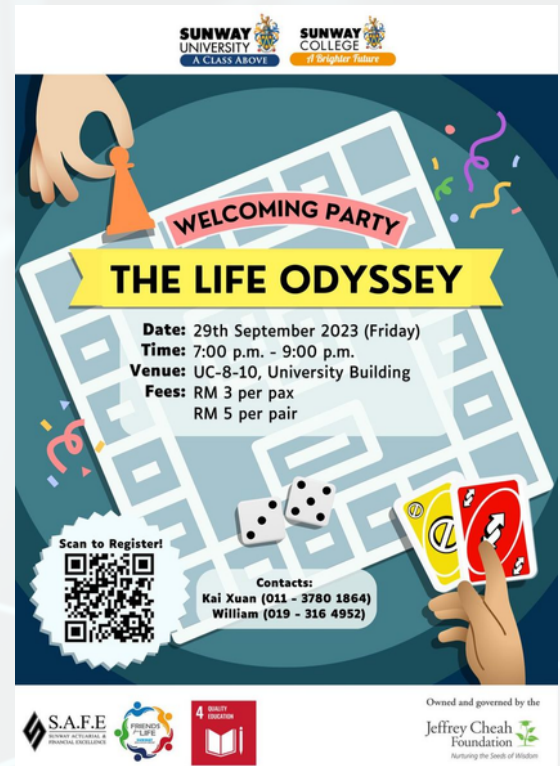


AFFILIATED SOCIETIES PAST EVENTS

Sunway Actuarial & Financial Excellence (SAFE)

SAFE Welcoming Party: The Life Odyssey.

On 29th September 2023, Sunway Actuarial & Financial Excellence organised their first event of the new service term, SAFE Welcoming Party: The Life Odyssey! The event successfully brought about 60 club members to connect and interact while having fun together. From the interactive ice-breaking and amusing station games, the new and existing SAFE members had a blast mingling and forging lifelong friendships. And not to forget, the ex-committee sharing session that provided participants with helpful advice on academic and extracurricular activities.



On November 18, 2023, the School of Mathematical Sciences, Sunway University convened the Sunway IFoA Awards Ceremony to acknowledge students who demonstrated exceptional performance. Awards like the distinguished Sir Edward Johnston Prize, established by the Institute and Faculty of Actuaries (IFoA), China South-East Asia Scholarship, and School of Mathematical Sciences Book Awards were presented during the event. An insightful sharing session by alumni Matthew Liu Man Hin and Chew Jian Xun served as a motivational guide to the participants who are in the actuarial journey.

IFoA Awards Ceremony.

AFFILIATED SOCIETIES PAST EVENTS

Actuarial Science Club, UKM

Sharing Session and Actuarial Paper Talk

An online sharing session was held primarily for first year students to expose them to the different types of actuarial papers available. They also had a chance to listen to experiences of lecturers and students who have taken the exam, what to expect and how to prepare. This sharing session could be a stepping stone for the new students to excel in their exam.



Industrial Visit to Great Eastern Takaful Berhad

Date: 15 December 2023

A visit to Great Eastern Takaful Berhad was held involving third and fourth year actuarial students. This visit was filled with talks regarding the company, actuarial pricing and valuation and a sharing session with Great Eastern's own appointed actuary. This visit served as a glimpse into the career life actuary students might face once they enter the real world.



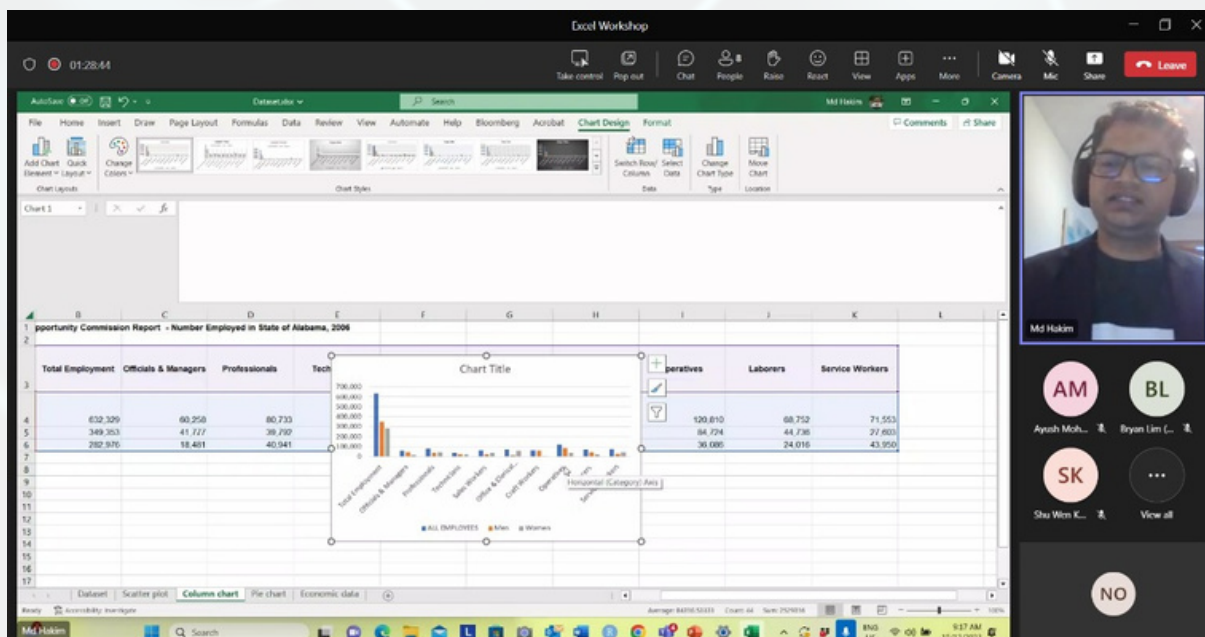
AFFILIATED SOCIETIES PAST EVENTS

Statistical and Actuarial Society (STACT), UoSM



Microsoft Excel Workshop

Microsoft Excel is no stranger to the experts in our industry. It's incredibly useful, has a wide range of functions, and can be utilized for both academic and professional development. In this online workshop, we're fortunate to be joined by Dr. Md Hakim Ali, an assistant professor of Finance and Business Analytics from UoSM, as he guides us through the nooks and crannies of this seemingly complex application. Not only will we get through the basic functions that Excel provides, but also the interesting external tool pack that it provides. We hope this event serves its purpose as well as inspires its audience. We thank Dr. Hakim graciously for his time and aid, here's to hoping this is the first of many workshops we'll have.



AFFILIATED SOCIETIES PAST EVENTS

Actuarial Science Student Association (ASSA), UCSI

The "Internship Sharing Session" featured insights from actuarial seniors – Elgene Ewe Ern, Cindy Wong Chui Hsia, and Tham Chee Yung, offering valuable lessons and triumphs from their diverse internship experiences.

Furthermore, our ASSA's "Welcoming Party" brought together both new and existing members for an evening filled with fun games and camaraderie, fostering connections among students from various backgrounds.

At the "Be an Actuary 4.0" event, Mr. Billy Tanuwijaya, an ASA Associate at Nicholas Actuarial Solutions, shared his extensive expertise in the actuarial field, providing valuable insights for those embarking on their actuarial journeys. His presentation covered his work areas such as life insurance, IFRS 17 implementation, and various other significant actuarial projects, offering attendees a profound understanding of the field.



AFFILIATED SOCIETIES PAST EVENTS

Actuarial Science Society, UTAR

On 24th November 2023, the UTAR Actuarial Science Society organized a virtual IAP talk via Microsoft Teams titled "Impact of Current Interest Rate Environment + Non-Traditional Paths for Actuarial Students." Presented by UTAR alumnus and current DBS Bank Vice President, Mr. Gabriel Ryan Adaikalam, the session delved into the evolving interest rate landscape amidst inflation and its impact on risk management. Mr. Gabriel also discussed both traditional and non-traditional career paths for actuarial science students, emphasizing the importance of continuous learning in Python and SQL. The talk offered participants insights into risk management and diverse career pathways. Mr. Gabriel's success story also served as motivation, inspiring students in their own career pursuits.

IFoA Talk: Actuarial Day with IFoA

On 12th December 2023, the UTAR Actuarial Science Society hosted an IFoA talk titled "Actuarial Day with IFoA". Esteemed industry professionals, Ms. Prisheeni and Ms. Shaun, provided invaluable insights into the actuarial profession and the Institute and Faculty of Actuaries (IFoA). The event offered a comprehensive exploration of the IFoA qualification roadmap, salary expectations for actuaries in Malaysia, and the significance of the Chartered Enterprise Risk Actuary (CERA) designation. Engaging discussions and interactive Q&A sessions via Slido enriched participants' understanding and fostered stronger connections to the profession and IFoA resources, making it a highly successful and informative event.

Industry Advisory Panel (IAP) Talk



The poster for the IAP Talk event features a dark background with a building facade. The text is in white and yellow. It includes the title 'IAP TALK NON-TRADITIONAL PATH FOR ACTUARIAL STUDENTS & RISK MANAGEMENT', a description of the talk, the date '24 NOV 2023 FRIDAY', the time '1.30 - 3.00 PM', and the platform 'MICROSOFT TEAMS'. It also features a circular portrait of the speaker, Gabriel Ryan, and a QR code for registration. Logos for LKC and UTAR are at the bottom.

IAP TALK
NON-TRADITIONAL PATH FOR ACTUARIAL STUDENTS & RISK MANAGEMENT
Different from traditional actuary, what are the roles outside of insurance that makes use of actuarial knowledge.
Discussion about impact of high interest rate environment and current financial landscape.
24 NOV 2023
FRIDAY
1.30 - 3.00
PM PM
MICROSOFT TEAMS
MEET OUR SPEAKER
GABRIEL RYAN
VICE PRESIDENT, DBS BANK
REGISTER NOW FOR FREE!
FOR ENQUIRIES: 012-365 3804
LKC UTAR



AFFILIATED SOCIETIES PAST EVENTS

UM Actuarial and Financial Mathematics Society (UMACT)

Industrial Talk: The Daily Life of Actuaries at Hannover Re

UMACT Industrial Talk: The Daily Life of Actuaries at Hannover Re. is a collaboration event with Hannover Re targeting to offer participants a glimpse into the world of actuaries. This talk was held on 17th November 2023 from 2.20 p.m. to 5.25 p.m.

The speakers invited are Mr. Sören Kruse, Mr. Yong Shern Leong, and Mr. Cheng Weng Hou. Undoubtedly, it is an eye-opening experience for the participants to strive deeper into the potential future career pathway as an actuary.



UMACT x BYIC Cashflow Game

UMACT x BYIC Cashflow Game hosted by UMACT, in collaboration with Universiti Malaya Bursa Young Investor Club (BYIC), providing a thrilling experience for participants to join an exciting investing board game. UMACT and BYIC wish to enhance participants' financial literacy in a fun and dynamic way.



The Cashflow Game was held on 8th December 2023 at Universiti Malaya. It is believed that it was a grand success for the event and participants would be able to implement the knowledge learnt in their real life.

Q&A SESSION

Navigating the Actuarial Landscape: Insights from Industry Leaders



KELVIN HII CHEE YUN

- Chief Risk Officer, MSIG Insurance (Malaysia) Bhd
- Work Experience: 17 years +
- Area of Expertise: Appointed Actuary, General Insurance, Enterprise Risk Management

- Founder & Actuary at Nicholas Actuarial Solutions
- Work Experience: 18 years
- Area of Expertise: People, Business



NICHOLAS YEO CHEE LEK

Industry Overview

Q1: How has the actuarial profession evolved during your career?

Kelvin: "Since I began my career in April 2006, the (general insurance) actuarial field has changed a lot. There are **more rules and standards** now, showing that actuaries have a bigger role in general insurance. These include things like valuation of insurance liabilities, Risk-Based Capital, Financial Condition Reports, Phased Liberalisation of Motor and Fire Tariffs as well as IFRS 17. Actuaries also do a lot in **new areas like data science and analytics** and dealing with **problems related to climate change**. We are also observing a **growing supply of actuarial graduates** due to its popularity and increasing number of universities offering actuarial science courses."

Q&A SESSION

Nicholas: "Last time, the work was very tough, there was little technology available, and very few people could succeed. Now, there are many **more simple menial tasks**, a lot more people with less skills can do the work. Problem is, a lot of these simple menial tasks will be **automated with new technology soon.**"

Career Paths and Specializations

Q2: What career paths are available for actuarial graduates?

Kelvin: "Actuarial graduates can consider the **traditional** areas of actuarial work such as **valuation and pricing** within the insurance and takaful industry. Besides, they can also consider the wider areas like **enterprise risk management, underwriting, finance, and reinsurance**. Furthermore, **consultancies, brokers, banks and investment firms** can also be the choices for actuarial graduates."

Nicholas: "**Unlimited.**"

Q3: Which specific industry specialisation within actuarial science that are currently in high demand?

Kelvin: "I believe the demand for quality actuarial graduates remains strong across all areas. Specifically, I believe there is a high demand for actuarial graduates by the **big 4 accounting firms due to IFRS 17 implementation work** (based in Malaysia or Singapore) for ASEAN countries that have yet to adopt IFRS 17."

Nicholas: "All the roles are currently in high demand, for those **highly skilled.**"

Skills and Attributes

Q4: What skills and attributes do you believe are crucial for success in the actuarial profession?

Nicholas: "**Genuine interest** in the profession. Strong **communication skills**. Smart, brave and responsible."

Q&A SESSION

Kelvin: "Strong **actuarial and technical skills**. Additionally, it's crucial to grasp the **business context** and develop business acumen. Good **communication skills**, both written and verbal, are vital, especially the ability to clearly and concisely explain technical actuarial concepts and results to a non-actuarial audience. Moreover, success in this field requires the **ability to consider the different perspectives of various stakeholders** impacted by actuarial work."

Workplace Dynamics

Q5: How do actuaries typically collaborate with other departments or professionals in your company?

Nicholas: "With a **genuine intention** to help others succeed, to meet business objectives together."

Kelvin: "Much effort is required to ensure good collaboration between different departments - especially with colleagues from a different background / training / perspectives. There are usually **multiple and often conflicting objectives by different stakeholders** - hence, all parties need to have an open heart and open mind when working together. A **proper, objective, and structured decision-making process** (e.g. deliberation by committee) is key to ensure holistic considerations resulting in agreed decisions and outcomes."

Technology and Innovation

Q6: How has technology, such as data analytics and machine learning, impacted the actuarial profession in recent years?

Kelvin: "Strictly speaking, data analytics and machine learning techniques has been around for a while. The availability of "**big-data**" compounded with **increasing computing powers/ technology** were the enablers of wide application of data analytics and machine learning. The actuarial profession is well positioned to contribute significantly in the areas of data analytics and machine learning. Naturally, it has become **almost compulsory** for actuarial graduates to have strong programming skills / logic."

Q&A SESSION

Nicholas: "No. The technology and innovation is not in data analytics and machine learning. It is in how **skilled people can replace less skilled people through automation.**"

Industry Changes and Future Outlook

Q7: How do you see the actuarial profession evolving in the next decade?

Kelvin: "I believe that actuaries will continue to be at the **forefront of many key areas/initiatives.** I hope that the actuarial profession can expand greater influence beyond the insurance industry. I strongly believe in the **actuarial training/skillset,** which is very versatile and can be applied in a wide range of areas for the wider benefit."

Nicholas: "There will be significant automation. The **highly skilled people** will be able to make good use of the automation and add **more value everywhere.** The low skilled people will be forced away from the profession."

Tips for Success

Q8: Any advice for students who are aspiring to excel in their actuarial studies and future careers?

Nicholas: "Actuarial career is not suitable for most people. Students need to understand this. Then if they decided to pursue this career, there needs to be a **wholehearted commitment.** They need to understand what it takes to succeed and be willing to carry through. Else they will be stuck."

Kelvin: "For your actuarial university subjects, please **study well** for the purpose of building strong foundations, which will benefit you in the future. **Don't waste too much time on unproductive activities** during your student life. Keep the momentum / persevere / use your time wisely. A full marathon is completed one step at a time. In your free time, please **read a lot! Keep updated and be well-informed** of news and developments. Lastly, don't stress too much about things that are too far away. Remain focused on what is in front of you."

HOT TOPICS FROM THE ACTUARY MAGAZINE (OCT)

Data Management Dynamics: Navigating SQL and NoSQL in Actuarial Science

In the realm of actuarial science, effective data management serves as a cornerstone for handling vast volumes of critical information, ranging from customer details and policy information to risk evaluations and claims records. The latest issue of the Longevity Bulletin, edited by Matthew Edwards, dives into the pivotal role that data management plays, especially in the context of the insurance industry.

The Database Dilemma: SQL vs. NoSQL

Choosing the right database solution is a critical decision for actuaries dealing with data-driven decisions. The article explores the dynamic interplay between Structured Query Language (SQL) and not-only-SQL (NoSQL) databases, shedding light on their unique characteristics and applications within the insurance sector.

SQL: Foundation of Structure and Rigidity

SQL databases have long been the preferred choice in the insurance sector, known for their proficiency in managing structured data. They excel in tasks such as policy administration, pricing calculations, and ensuring regulatory compliance. With robust data integrity and enforced schemas, SQL databases like MySQL, PostgreSQL, Microsoft SQL, and Oracle are instrumental in handling intricate relationships, making them ideal for claims processing and financial reporting.

NoSQL: Flexibility and Scalability

The landscape is evolving, with the insurance sector increasingly embracing NoSQL databases, particularly for handling unstructured and semi-structured data. NoSQL databases, including MongoDB, Cassandra, and Redis, provide remarkable flexibility, scalability, and performance. They efficiently store and analyse various data types, from sensor data to sentiment analysis from social media, and telematics information for usage-based insurance.

Making Informed Choices

Actuaries are faced with the challenge of selecting the most suitable database solution for efficient data management, analytics, and modelling. The article emphasises the importance of assessing specific needs, considering factors such as data variety, performance, compliance requirements, and ecosystem support. Striking the right balance between SQL's structured foundation and NoSQL's flexibility can unlock the true potential of data in the insurance industry.

Conclusion: Navigating the Database Landscape

As the insurance industry continues to evolve, actuaries must stay informed about the evolving database landscape. SQL and NoSQL each offer unique advantages, and the key lies in making informed choices based on the specific requirements of the task at hand. By understanding the dynamics between these two database types, actuaries can harness the true power of data, ensuring efficient and effective decision-making in the complex realm of actuarial science.

(Adapted from The Actuary October 2023 Edition)

HOT TOPICS FROM THE ACTUARY MAGAZINE (OCT)

Unlocking Reinsurance: A Simple Guide for Insurers

Reinsurance serves as a cornerstone in insurers' risk management, safeguarding them from unforeseen events. This guide provides an easy-to-follow roadmap for insurers in Malaysia to enhance their reinsurance strategies, striking a balance between risk transfer and retention.

1. Grasping the Risk Profile

Start by understanding the risk profile—analyse risk types, past losses, geographical exposures, and key metrics. Tailor the reinsurance structure accordingly, like using excess of loss treaties for high-severity classes.

2. Defining Clear Objectives

Objectives act as a compass, guiding insurers towards their goals. Whether it's protecting against losses, stabilising results, optimising capital, accessing expertise, or meeting regulations, these objectives shape reinsurance as structural support for broader business goals.

3. Exploring Reinsurance Options

Choose between facultative and treaty reinsurance. Proportional treaties, like quota share, offer risk sharing, while non-proportional treaties, like excess of loss, cover losses exceeding set thresholds.

4. Optimising Risk Transfer and Retention

Balance risk transfer and retention by assessing risk appetite, financial capacity, and expertise. Actuarial analysis and risk modelling determine optimal levels aligned with long-term business goals.

5. Selecting Reinsurers Wisely

Critical to choose reinsurers based on financial strength, claims ability, expertise, and alignment with objectives. Building strong relationships ensures tailored solutions that match the insurer's risk management philosophy.

6. Negotiating Efficiently

Craft a thoughtful pricing strategy considering loss ratios, profit margins, expense ratios, and capital costs. Negotiating contract terms should balance insurer needs and competitive pricing. Collaboration with reinsurers aids in finding mutually beneficial solutions.

7. Continuous Monitoring

Insurance is cyclical, requiring constant monitoring. Regular assessments of claims experience, loss development, and financial impact allow insurers to adapt the structure during renewals to evolving risk profiles and market conditions.

In conclusion, designing an optimal reinsurance structure is dynamic. With a well-designed reinsurance structure, insurers can navigate uncertainties, protect against catastrophic losses, ensure sustainable growth, and explore new horizons in today's competitive insurance landscape.

(Adapted from The Actuary October 2023 Edition)

QUESTIONNAIRE/PUZZLE

A prize is placed under one of five objects. Shilpa is privately told the shape of the object, and Colin is privately told the colour of the object. Shilpa and Colin are mathematicians who use perfect logical reasoning, and the initial setup is common knowledge.

The host asks, "Do either of you know where the prize is?" Both of them remain silent. The host then asks, "Do you know now?" Again, they both remain silent. Finally, the host asks, "Do you know now?" Shilpa and Colin simultaneously say yes.

The question is, where is the prize?

*Note: Colin knows that Shilpa has the information of the shape of the object, and Shilpa knows that Colin has the information of the colour of the object



Solution:

When the host asked whether they knew where the prize was for the first time, both of them were silent. If the prize had been the blue square, Shilpa would have said she knew where the prize was (since there was only one square). So, we can eliminate the blue square. If the prize had been the yellow circle, Colin would have said he knew where the prize was (since there was only one yellow object). So, we can eliminate the yellow circle. We are left with a green triangle, a blue triangle, and a green circle.

Now, the host asked the second time and both were silent again. If the prize had been the green circle, Shilpa would have said she knew where the prize was (since there was only one circle left). So, we can eliminate the green circle. If the prize had been the blue triangle, Colin would have said he knew where the prize was (since there was only one blue object left). So, we can eliminate the blue triangle. We are left with just the green triangle. When the host asked the third time, Shilpa and Colin both knew the prize was the green triangle.

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