ISSN 1391 4395 SEP-DEC 2025

IASSL NEWSLETTER

Institute of Applied Statistics, Sri Lanka
The Professional Center 275/75 Prof. Stanley Wijesundara Mawatha
Colombo 07 Sri Lanka

+94 11 2588291
info@iassl.lk
http://www.iassl.lk
http://www.facebook.com/iassl2020/
https://www.linkedin.com/company/iassl/

"Statistical thinking is an essential component of informed citizenship."
- David Spiegelhalter

Featured Segments

NEWS IN BRIEF

From IASSL President's pen

Dr. Rajitha M. Silva
President/IASSL

The past few months have once again reminded me that IASSL is not a collection of separate parts but a single living body where learning, research, outreach, finance, and publication move in coordination with one another. When this alignment is present, progress feels natural, and growth becomes steady and sustainable.

One of the clearest expressions of this collective strength was STAT ReTreat 2025. Bringing together statistics undergraduates from across the country in a residential setting became more than an event. It evolved into a shared experience of learning, mentorship, collaboration, and belonging. Academic discussion blended naturally with peer interaction and teamwork, reinforcing the idea that statistics is not only a discipline but also a community. The success of STAT ReTreat reflected what can be achieved when vision planning, academic purpose, and operational support work together as one.

Alongside this milestone, the ongoing rhythm of teaching, training, research, and publication continued without interruption. Educational programs remained strong and relevant, applied research progressed in both scale and impact, and our publications continued to grow in quality and reach.

What gives me the greatest confidence is that this momentum is driven by our members. Volunteers, lecturers, researchers, students, and council members contribute in different ways but to the same purpose. When one area advances, the entire institute moves forward together.

As we look ahead, our task is not simply to do more but to continue working together with shared purpose, responsibility and clarity of direction. With strong foundations and an engaged community, IASSL is well positioned to contribute meaningfully to a data-informed society and to lead with integrity and relevance.

Together we will continue to grow, inspire and lead.

President/Institute of Applied Statistics, Sri Lanka (IASSL)

Editorial

Dr. Chathuri L. Jayasinghe
Editor/IASSL

Dear Readers,

We are pleased to present the September–December 2025 issue of the IASSL Newsletter, which brings together a rich blend of scholarly insight, professional guidance, and updates from the institute reflecting the breadth and vitality of our community.

This issue features four academic articles that highlight the expanding role of statistics and data science across diverse domains. These contributions explore contemporary themes, including data assimilation, statistical approaches to disease diagnostics, forecasting species population dynamics, and a reflective piece on Florence Nightingale as one of history's earliest and most influential data scientists, underscoring the enduring impact of data-driven reasoning.

Complementing these scholarly works, we include an article by an industry professional offering a practical guide for beginner data scientists, bridging the gap between academic training and real-world application. We also feature a special tribute article on Professor Rob J. Hyndman, written by one of his students/colleagues, celebrating his visionary contributions that have profoundly shaped modern forecasting theory and practice.

In addition, this issue captures key IASSL activities and milestones from September to December 2025. Highlights include a report on the first-ever STATReTreat, a landmark event organized by the IASSL, which was a two-day residential camp designed to foster learning, collaboration, and networking among undergraduate students of statistics. The retreat brought together students, academics, and industry professionals, broadening participants' perspectives and encouraging exploration of future academic and career pathways. A summary of courses conducted by IASSL, along with details of upcoming courses for Jan-Apr, 2026, and recent developments within the statistical community in Sri Lanka has also been included. We are also proud to acknowledge the achievements of our members, whose accomplishments continue to bring distinction to IASSL.

We hope this issue informs, inspires, and strengthens connections within our community. As always, we thank our authors, contributors, and readers for their continued support and engagement with IASSL.

Happy reading!

Warm regards,
Editor/Institute of Applied Statistics, Sri Lanka (IASSL)

CONTACT INFORMATION

Institute of Applied Statistics
Sri Lanka
The Professional Center
275/75, Prof. Stanley Wijesundara Mawatha
Colombo 07
Sri Lanka

+94 112588291

facebook.com/iassl2020

linkedin.com/company/iassl/

editor@iassl.lk

A statistician's guide to overdiagnosis, screening bias, and natural experiments in melanoma: Lessons from the COVID-19 pandemic

Dr Dilki Jayasinghe
Biostatistician/Research Fellow
Centre for Health Services Research
The University of Queensland, Australia

The sustained rise in melanoma incidence over recent decades, in the absence of a proportional reduction in mortality, has raised longstanding concerns about overdiagnosis[1]. Overdiagnosis is defined as the detection of biologically indolent lesions that would not have caused clinical harm during a person's lifetime. It has become a central concern in melanoma epidemiology as detection of in situ melanomas (confined to the top layer of the skin, epidermis) and very thin invasive melanomas has accelerated alongside expanding screening practices, advances in imaging technologies, and increasing public awareness imposing a considerable burden on health care systems. In an ideal setting, the question of overdiagnosis would be addressed through randomized controlled trials that systematically vary screening intensity and follow participants for melanoma-specific mortality, but such trials are neither feasible nor ethical. Mechanistic mathematical modelling approaches, including microsimulation models[2] and state-transition models[3], have therefore been proposed as alternatives to purely statistical estimators, as they explicitly represent disease natural history, screening intensity, and competing risks.

The COVID-19 pandemic created a rare natural experiment that approximated a real-world counterfactual. Access to dermatology services and routine skin checks declined abruptly, providing a unique opportunity to observe the consequences of reduced diagnostic activity. If modern melanoma practices were truly preventing lethal disease through early detection, one would expect a subsequent surge in thick, clinically significant melanomas. Using population-based data from Queensland, Australia, we were able to test this hypothesis using modern time series methods[4].

What earlier studies showed and the statistical limitations that followed

Early pandemic-era melanoma studies widely reported two headline findings: fewer melanomas being diagnosed[5] and higher average Breslow thickness among those that were diagonosed[6-8]. From a statistical perspective, this pattern created immediate interpretability problems.

Most studies relied on descriptive before-after comparisons of means or proportions[9-11]. Few explicitly modelled the underlying temporal trends in melanoma incidence that had been rising steadily for years. Fewer still analyzed numerator and denominator simultaneously, for example, tracking both the number of thick melanomas and the loss of thin melanomas that structurally shifts the mean[12].

The result was a classic statistical tension: was the observed increase in thickness a true biological signal, or a compositional artefact produced by case depletion and selection?

This question made the problem ideal for a quasi-experimental approach.

Why we turned to Interrupted Time Series (ITS)

Rather than treating COVID-19 as a simple before-after comparison, we viewed the introduction of public health restrictions as a sudden structural break in an ongoing stochastic process. Interrupted Time Series (ITS) models this scenario by using the pre-intervention trend to generate a counterfactual, allowing us to estimate deviations in both the mean level and slope after the intervention.

Under standard ITS assumptions (stable pre-intervention trends, no other simultaneous shocks, and consistent outcome measurement) this approach provides quasi-experimental causal estimates of both immediate (level) and gradual (slope) effects of the disruption.

We used monthly melanoma cases from the Queensland Cancer Register[13] from January 2015 to December 2021, and defined March 2020, the start of major COVID restrictions, as the intervention point. Outcomes were analyzed overall and stratified by clinically meaningful thickness categories: melanoma in situ, ≤1.0 mm, 1.1–2.0 mm, 2.1–4.0 mm, and >4.0 mm.

Counts were modelled using Poisson regression adjusted for overdispersion and seasonal effects. We tested for autocorrelation in the residuals to assess whether serial dependence compromised inference.

The ITS model

Assuming that we observe a time series of count outcomes, an interrupted time series (ITS) Poisson regression model corresponding to both a level change and a slope change following the intervention, can be described as follows:

$$logE(Y_t|X_t, t) = \beta_0 + \beta_1 t + \beta_2 X_t + \beta_3 (t - t^*)X_t + s(t)$$

Where:

- Y_t is the number of melanomas in month t
- t represents time since the start of the series
- $X_t = 1_{\{t \geq t^*\}}$ is a binary indicator indicating time t in within the COVID-19 period or not
- $t^* > 0$ is the interruption time point or when COVID restrictions started
- β_1 estimates the pre-interruption slope
- β_2 estimates the immediate level change
- β_3 estimates the post-interruption slope change
- $s(t)$ captures seasonality via harmonic terms
- Variance adjusted for overdispersion with dispersion parameter ϕ and $E(Y_t|X_t, t) = \mu_t$:

$$Var(Y_t) = \phi\mu_t$$

Effect sizes were expressed as relative risks derived by comparing fitted values under observed versus counterfactual conditions[14].

What the models showed

The models produced three main findings.

First, there was a clear and statistically significant immediate drop in total melanoma diagnoses after March 2020. This decline was concentrated in melanoma in situ and thin invasive tumors (≤1.0 mm).

Second, although the mean Breslow thickness of diagnosed melanomas increased during the pandemic period, the ITS-fitted counterfactuals suggested this was largely driven by case-mix changes. Specifically, the disappearance of thin lesions rather than a surge in truly thick disease.

Third, segmented trends for thicker melanoma categories did not show statistically robust sustained increases beyond what would have been expected from pre-pandemic trends. In other words, the data were more consistent with diagnostic suppression than with biological acceleration.

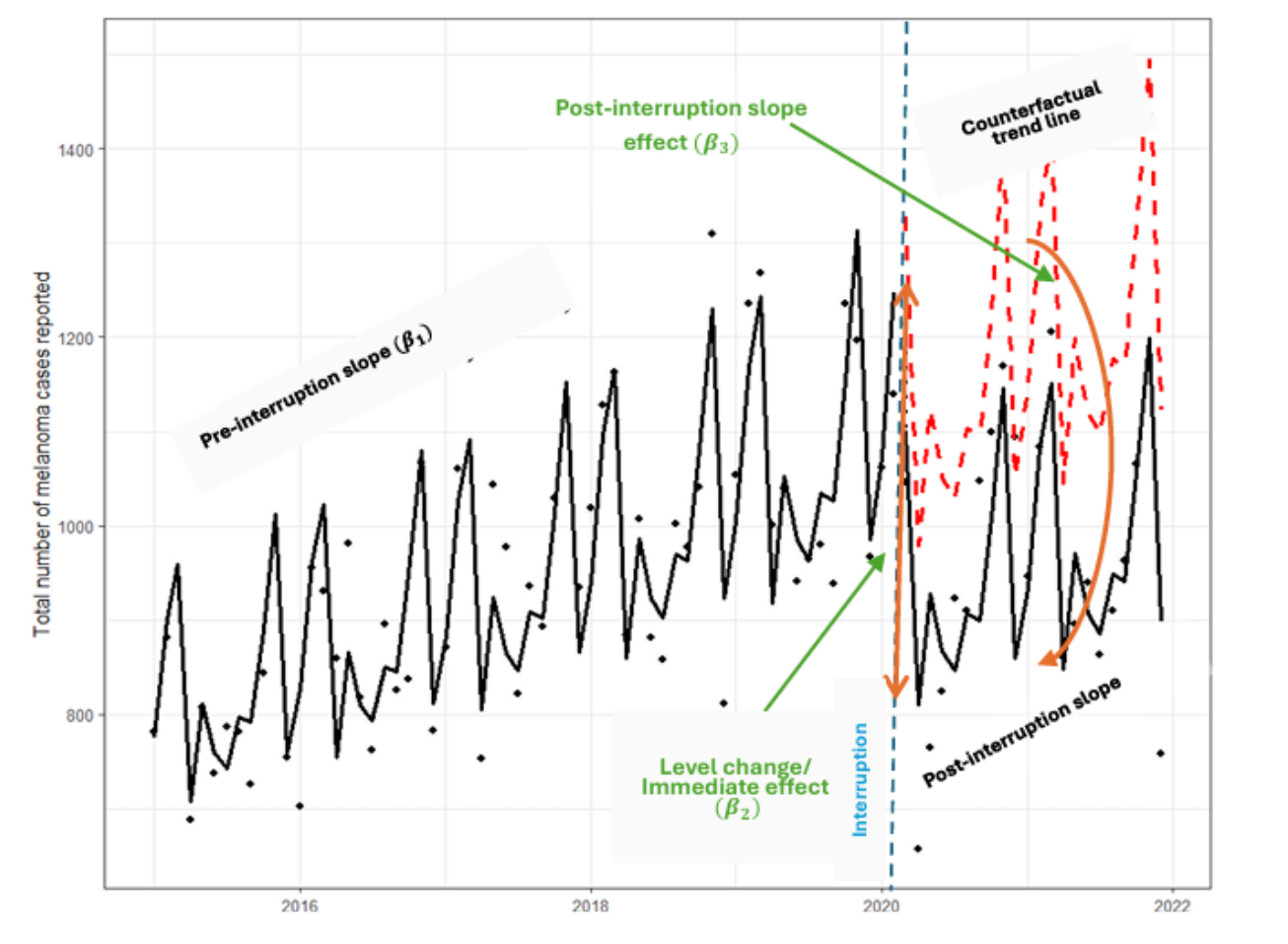


Figure 1: Interrupted Time Series graph for melanoma cases reported in Queensland from January 2015-December 2021

Black dots reflect the actual melanoma cases observed in each month; the black solid line represents fitted trend of reported melanoma cases per month by the model; the red dashed counterfactual line refers to the anticipated pattern of reported melanoma cases per month had the COVID restrictions not been imposed

Table 1: Monthly percentage change of reported melanoma cases and effect from COVID-19 restrictions on the reported melanoma cases using Interrupted Time Series Analysis

	MIS	≤1mm	1.01-2mm	2.01-4mm	>4mm	All Invasive	Total
Monthly percentage change							
Pre-COVID-19 Monthly mean (SD)	680.59 (89.88)	260.59 (40.99)	38.55 (8.15)	26.50 (6.01)	17.95 (4.41)	360.90 (51.42)	1041.49 (136.08)
During-COVID-19 Monthly mean (SD)	628.50 (100.76)	233.14 (36.78)	37.23 (9.78)	27.09 (6.19)	20.00 (5.37)	335.14 (48.83)	963.64 (145.98)
Mean change	-52.09	-27.45	-1.32	0.59	2.05	-25.76	-77.85
Percentage change	-7.65%	-10.53%	-3.42%	2.23%	11.42%	-7.14%	-7.47%
Effect from COVID-19 restrictions calculated using Interrupted Time Series Analysis							
COVID-19 immediate effect* (95% CI)	-0.22 (-0.31, -0.13)	-0.18 (-0.28,-0.09)	-0.01 (-0.19,0.16)	0.08 (-0.10,0.27)	0.04 (-0.20,0.27)	-0.13 (-0.21,-0.05)	-0.19 (-0.27,-0.11)
P value	<0.001	<0.001	0.89	0.379	0.74	0.003	<0.001
COVID-19 sustained effect** (95% CI)	-0.002 (-0.009, 0.004)	-0.002 (-0.01,0.00)	0.00 (-0.01,0.01)	-0.01 (-0.02,0.01)	0.00 (-0.01,0.02)	0.00 (-0.01,0.00)	-0.002 (-0.007,0.004)
P value	0.53	0.63	0.93	0.28	0.69	0.71	0.55
COVID-19 combined effect † (95% CI)	0.78 (0.73, 0.84)	0.82 (0.76,0.88)	0.98 (0.86,1.12)	1.01 (0.87,1.17)	1.08 (0.89,1.30)	0.87 (0.82,0.93)	0.81 (0.77, 0.87)
P value	<0.001	<0.001	0.78	0.90	0.43	<0.001	<0.001

Statistical pitfalls and biases that interpret these findings

Although the ITS framework adjusts for baseline temporal trends and seasonality, the design does not identify or eliminate screening-specific biases and selection mechanisms. These processes were not directly parameterized and therefore remain unquantified sources of uncertainty.

Lead-time bias occurs when a disease is detected earlier without changing the actual time of death. Statistically, this shifts the recorded "time zero" backward, inflating observed survival time without any real improvement in outcomes. When screening intensity suddenly drops, this distortion changes in complex, non-linear ways, making temporal comparisons of disease stage harder to interpret.

Length-time bias rises because screening more readily detects slow-growing tumors than fast-growing ones. This creates a selection effect: the observed cases are enriched for biologically indolent disease. When screening activity declines, these slow-growing tumors are the most likely to disappear from surveillance data, mechanically increasing the proportion of aggressive cases even if their true incidence has not changed.

Immortal time bias can occur in registry-based studies when individuals must survive long enough to receive a diagnosis in order to enter the dataset. During periods of restricted access to care, this can induce selection on survival, distorting both incidence estimates and the distribution of disease severity.
Changes in health-seeking behavior, referral thresholds, and pathology workflows during the pandemic introduce additional unmeasured confounding.

Why this matters for statisticians

This study is fundamentally a case study in how analytic framing determines scientific narrative. A naive comparison of pre- and post-COVID averages suggests alarming disease progression. A time-series framework that models trends, seasonality, and counterfactuals tells a more nuanced story.

It illustrates three core lessons:

- Selection effects can masquerade as biological effects.
- Mean-based summaries are fragile under denominator shifts.
- Quasi-experimental designs are indispensable when randomization is impossible.

It also shows the value of integrating domain structure (tumor thickness categories) directly into the model rather than analyzing aggregated outcomes alone.

Where the field goes next

COVID-19 provided a rare data perturbation, but it did not resolve the overdiagnosis question. The key next step is **formal integration of ITS-derived parameters into microsimulation models,** allowing explicit estimation of the proportion of detected melanomas that represent overdiagnosis versus harmful delay.

Longer follow-up is also critical. If delayed diagnoses translate into thicker tumors or excess mortality years later, short-term ITS windows will miss that signal.

Final reflection

The pandemic temporarily silenced one of the world's most active cancer diagnostic systems. For statisticians, it created a rare alignment of real-world disruption and methodological opportunity. Our findings do not prove or disprove overdiagnosis. Instead, they demonstrate the power and the limits of causal inference in observational data, and how different statistical lenses can transform the same dataset into very different scientific stories.

References

Schumann L, Eisemann N, Augustin J, et al. Association of early-stage incidence and mortality in malignant melanoma - a population-based ecological study. J Dtsch Dermatol Ges. 2023;21 Suppl 5:33-40.

Rutter CM, Zaslavsky AM, Feuer EJ. Dynamic microsimulation models for health outcomes: a review. Medical decision making : an international journal of the Society for Medical Decision Making. 2011;31(1):10-18.

Siebert U, Alagoz O, Bayoumi AM, et al. State-transition modeling: a report of the ISPOR-SMDM Modeling Good Research Practices Task Force-3. Medical decision making : an international journal of the Society for Medical Decision Making. 2012;32(5):690-700.

Zheng L, Soyer HP, Janda M, Jayasinghe D. An Overview of Data Analysis Approaches and Biases in Unveiling the Impact of COVID-19 on Melanoma Diagnosis. Journal of Investigative Dermatology. 2025;145(10):2619-2623.e2614.

Wall J, Gadsby-Davis K, Mistry K, Levell NJ, Venables ZC. Impact of the COVID-19 pandemic on international cutaneous squamous cell carcinoma incidence: A systematic review and meta-analysis. 2024;4(4):e405.

Berry W, Tan K, Haydon A, Shackleton M, Mar VJ. Reduced melanoma referrals during COVID-19 lockdown. Aust J Gen Pract. 2021;50.

Davis CH, Ho J, Greco SH, et al. COVID-19 is Affecting the Presentation and Treatment of Melanoma Patients in the Northeastern United States. Ann Surg Oncol. 2022;29(3):1629-1635.

Shannon AB, Sharon CE, Straker RJ, 3rd, et al. The impact of the COVID-19 pandemic on the presentation status of newly diagnosed melanoma: A single institution experience. J Am Acad Dermatol. 2021;84(4):1096-1098.

Troesch A, Hoellwerth M, Forchhammer S, et al. The impact of the COVID-19 pandemic on the diagnosis of cutaneous melanomas: A retrospective cohort study from five European skin cancer reference centres. 2023;37(5):922-931.

Skowron F, Mouret S, Seigneurin A, et al. Impact of the COVID-19 pandemic on melanoma: A retrospective study from the French clinical database of melanoma patients (RIC-Mel). Annales de dermatologie et de venereologie. 2025;152(4):103418.

Apostu AP, Vesa ȘC, Frățilă S, et al. The effects of the COVID-19 pandemic on the diagnosis and prognosis of melanoma 2 years after the pandemic in two Romanian counties. 2024;Volume 11 - 2024.

Kim DY, Hartman RI. Incidence of in situ and invasive cutaneous melanomas during the COVID-19 pandemic in the US. JAMA dermatology. 2023;159(10):1141-1145.

Queensland Health QCCAT. Cutaneous invasive melanoma. In. Brisbane: Queensland Health. Queensland Cancer Register. Cancer Alliance Queensland; 2023.

Travis-Lumer Y, Goldberg Y, Levine SZ. Effect size quantification for interrupted time series analysis: implementation in R and analysis for Covid-19 research. Emerging themes in epidemiology. 2022;19(1):9.

A Simple Description of the Kalman Filter from the Perspective of Data Assimilation

Dr. B. P. W. Fernando
Department of Mathematics
University of Sri Jayewardenepura
Sri Lanka

Introduction

Data assimilation is a method used to forecast the state of a system by combining an underlying dynamical model with available observations. It is well known that the mathematical formulation of data assimilation is rooted in Bayesian analysis.

In this article, we aim to provide a basic understanding of the stochastic Kalman filter from the perspective of data assimilation. The purpose is to give readers an accessible entry point into the mechanism of Kalman filters. First, we introduce a very basic problem that illustrates the essential ideas and builds intuition for the mechanism underlying the Kalman filter.

A Fundamental Estimation Problem

Suppose we want to study an unknown quantity X. We are given two pieces of information, X_1 and X_2, about X.

The means and variances of X_1 and X_2 are $\mathbb{E}[X_1] = m$, $\mathrm{Var}(X_1) = \sigma_1^2$, $\mathbb{E}[X_2] = m$, and $\mathrm{Var}(X_2) = \sigma_2^2$.

We assume that X_1 and X_2 are independent.

Our goal is to estimate the unknown quantity X using the two independent random variables X_1 and X_2.

In estimation theory, there are two main classes of estimators: - Linear estimators - Unbiased estimators

Our aim is to construct a Best Linear Unbiased Estimator (BLUE) for the unknown quantity X, based on the information contained in X_1 and X_2. In other words, the BLUE lies at the intersection of the two classes mentioned above: it is both linear and unbiased. Based on the data (X_1, X_2), we now ask how we can construct the best unbiased linear estimator (BLUE) for the unknown quantity X?

The celebrated Gauss–Markov Theorem states that the covariance of the least squares estimator of an unknown quantity is always smaller than the covariance of any other unbiased linear estimator of X. This theorem is one of the most fundamental results in estimation theory.

Let us consider a linear estimator of the form

$$\hat{X} = a_1 X_1 + a_2 X_2, \quad a_1, a_2 \in \mathbb{R}.$$

To make $\hat{X}$ an unbiased estimator, we compute

$$\mathbb{E}[\hat{X}] = a_1 \mathbb{E}[X_1] + a_2 \mathbb{E}[X_2] = (a_1 + a_2)m.$$

For unbiasedness, we require

$$a_1 + a_2 = 1.$$

The variance of $\hat{X}$ is

$$\mathrm{Var}(\hat{X}) = \mathbb{E}\left[(a_1X_1 + a_2X_2 - (a_1m + a_2m))^2\right].$$

Since X_1 and X_2 are independent, this becomes

$$\mathrm{Var}(\hat{X}) = a_1^2\sigma_1^2 + a_2^2\sigma_2^2.$$

Our target is to find the best estimator among such $\hat{X}$. To do this, we minimize $\mathrm{Var}(\hat{X})$ subject to the constraint $a_1 + a_2 = 1$.

Substituting $a_2 = 1 - a_1$, we get

$$\mathrm{Var}(\hat{X}) = a_1^2\sigma_1^2 + (1 - a_1)^2\sigma_2^2.$$

Differentiating with respect to a_1 and setting equal to zero:

$$\frac{\partial}{\partial a_1}\mathrm{Var}(\hat{X}) = 2a_1\sigma_1^2 - 2(1 - a_1)\sigma_2^2 = 0.$$

Solving, we find

$$a_1 = \frac{\sigma_2^2}{\sigma_1^2 + \sigma_2^2}, \quad a_2 = \frac{\sigma_1^2}{\sigma_1^2 + \sigma_2^2}.$$

Thus, the minimum variance is

$$\mathrm{Var}(\hat{X}) = \frac{\sigma_2^4}{(\sigma_1^2 + \sigma_2^2)^2}\sigma_1^2 + \frac{\sigma_1^4}{(\sigma_1^2 + \sigma_2^2)^2}\sigma_2^2$$

We can vertify that

$$\mathrm{Var}(\hat{X}) \leq \min(\sigma_1^2, \sigma_2^2).$$

That is, the chosen weights a_1 and a_2 minimize the variance of the unbiased linear estimator $\hat{X}$ among all possible choices.

If we reinterpret this estimation problem in the context of data assimilation, the random variables X_1 and X_2 represent different sources of information, for example, the model forecast and the observation.

In this Bayesian setup, the BLUE is given by

$$\hat{X} = \frac{\sigma_2^2}{\sigma_1^2 + \sigma_2^2}X_1 + \frac{\sigma_1^2}{\sigma_1^2 + \sigma_2^2}X_2.$$

This is the best linear unbiased estimator (BLUE) of X. It encapsulates the fundamental idea of data assimilation: combining multiple sources of uncertain information, weighted according to their variances, to produce the most reliable estimate.

The Kalman Filter as a Minimum Variance Estimator

The ideas developed earlier can be extended to a sequence of model forecasts and observations. The Kalman filter provides a recursive way to update our knowledge of the system state, always choosing the weights that minimize the variance of the estimation error.

Suppose the system evolves as

$$x_k = M_{k-1}x_{k-1} + w_k,$$

where M_{k-1} is the model operator and w_k is the model error with zero mean and covariance Q_k.

At time k, we obtain an observation

$$z_k = H_k x_k + v_k,$$

where H_k is the observation operator and v_k is the observation error with zero mean and covariance R_k.

As in the static case, we look for a linear estimator of the form

$$\hat{x}_k = \hat{x}_k^f + K_k\left(z_k - H_k\hat{x}_k^f\right),$$

where

$$\hat{x}_k^f = M_{k-1}\hat{x}_{k-1}$$

is the forecast from the previous step, and K_k is a gain matrix that determines how much weight is given to the observation.

The estimation error is

$$e_k = x_k - \hat{x}_k,$$

Its covariance is

$$P_k = \mathbb{E}[e_k e_k^T].$$

Just as in the BLUE problem, we minimize $\mathrm{tr}(P_k)$ (the total error variance) with respect to K_k. This leads to the formula

$$K_k = P_k^f H_k^T\left(H_k P_k^f H_k^T + R_k\right)^{-1}.$$

With this choice of K_k, the analysis error covariance becomes

$$P_k = (I - K_k H_k)P_k^f,$$

which is always smaller (in the variance sense) than using either the forecast or the observation alone. In summary, the Kalman filter extends the idea of the BLUE to a time evolving system: it always provides the best linear unbiased estimate with the smallest possible variance, updating step by step as new information arrives.

Lessons I Wish I Knew Before Starting My Career in Data Science

Vanodya Perera
Lead Data Scientist, Algonomy Pty Ltd

When I began my undergraduate studies, I had no idea why anyone would study Statistics. In fact, I chose it almost blindly, simply because my O/L Maths teacher suggested it. Looking back, I'm incredibly grateful for her advice and for trusting it without hesitation. What started as a random choice soon turned into genuine fascination. The more I studied, the more excited I became about data, probabilities, descriptive analysis, and predictive models. I learned my Statistics well, I'd even say I was a good student.

Still, one question nagged me: how do you translate this knowledge into a real-world career? Like many students, I wondered: Why are we learning hypothesis testing? Why ANOVA? Why so many assignments with datasets? How do you go from university to industry? Are there actual jobs where Statistics is valued?

I was a curious university student searching for those answers. That curiosity pushed me through many early struggles (for example, choosing between academia and industry) and eventually pushed me into the industry to get my hands dirty with real-world data. After eight years of working with messy, real business data, my hands feel well-polished, and I finally have many of the answers I was looking for.

If any of you are at a stage wondering the same things I once did, here are those answers, so you can prepare earlier than I did.

Looking back, my journey from a curious student to heading the Data Science team at Algonomy has been shaped by continuous learning, problem-solving, and a focus on impact. Here's my story, step by step, along with the lessons I wish I had known at the start.

University Foundations: Curiosity Meets Skills

My early years were all about building a strong foundation. Whether it was Statistics, Mathematics, or Physics, I wanted that base to be solid because I knew it would pay off one day (maybe also because I felt a little guilty about not getting into the engineering faculty). Statistics quickly became my favorite.

Most importantly, I began experimenting, working on small side projects, exploring real datasets, and participating in Kaggle competitions whenever I could. All of this came from a simple curiosity: How do we actually apply what we learn to real-world problems? That curiosity eventually helped me secure a place in the Statistics Special Degree program, which was truly one of my dreams come true.

If I can give one lesson from my university experience, it's this: your academic knowledge is your base, your foundation. Never underestimate it. But stay curious. Try solving real-world problems on your own. Early exposure to coding, SQL, and hands-on data work makes your transition to the industry so much smoother.

First Industry Experience: Learning by Doing

Our mandatory fourth-year internship was when all of us truly started worrying about what opportunities were actually available for students specializing in Statistics. Unlike today, there were only a handful of companies in Sri Lanka with proper Data Science roles back then. (That's definitely not the case anymore, now everyone talks about AI, ML, and Data Science, and there are countless opportunities.) Because of this, many of my batchmates couldn't secure real Data Science roles, even though they were extremely strong in applying Statistics.

I was fortunate to join a very small yet highly advanced start-up where they applied almost every concept I had learned at university. That felt like my second dream come true.

My first Data Analyst intern role quickly introduced me to the reality of industry work. The datasets were raw and messy, nothing like the clean, perfectly prepared datasets from university assignments or Kaggle competitions. The learning curve was steep. Models didn't always work, clusters weren't magically separable, data was incomplete, and deadlines were real. I learned fast that industry work requires practical solutions, not theoretical perfection.

I made plenty of mistakes, sometimes overcomplicating solutions, not documenting properly, or presenting things poorly. But every one of those experiences taught me something essential: how to deal with imperfect data, extract insights, communicate with teams, and deliver work that actually matters.

If I can give one lesson from my first industry experience, it is this: your first real world job will not be perfect, and that's okay. The industry teaches resilience, adaptability, and problem-solving in ways a university never can. Don't fear mistakes. Learn from them.

Building Expertise: Specialization & Impact

As I gained more experience in the industry, I realized just how fast this field evolves. Technology keeps changing every single day, and if we want to grow, we must keep learning and adapting. We began with classical statistical models, then machine learning took over, then deep learning, and now the world is moving rapidly toward Generative AI. If we don't keep pace with these trends, we risk missing out on career growth.

But just as important, I learned that real business impact matters more than mastering every new tool. Sometimes, a simple weighted average or moving average forecast delivers far more practical value than a highly complex, time-consuming model. That's one of the most important skills a Data Scientist must develop: understanding what truly solves the problem rather than chasing the most advanced algorithm for the sake of it.

If I can give one lesson from this phase of my career, it's this: you are in a fast-moving field. Staying updated is essential. But the most successful Data Scientists are the ones who strike a balance, learning new tools while also choosing the right solution, simple or complex, to drive meaningful results.

Developing Leadership Skills

As my career progressed, I naturally began mentoring junior team members and coordinating small internal projects. That's when I realized something important: technical expertise alone isn't enough to grow in any industry. Leadership demands planning, prioritization, and clear communication. It requires guiding teams, managing expectations, and making sure everyone understands both the technical details and the broader business context.

I also learned to communicate effectively with non-technical stakeholders, translating complex models into actionable insights that anyone could understand. This ability has been invaluable in my journey toward leadership. It's challenging, but incredibly rewarding. Over time, I've come to see that leadership is really about vision, guidance, and empowering your team to innovate and excel.

If there's one lesson I can share from my leadership experience, it's this: you must see yourself as a leader before others can see you as one. Start by taking full ownership of your work, even if it's just a small component of a larger project. Showing responsibility and standing by your results makes you a leader for yourself first. Ultimately, leadership is a mindset shift; you move from being accountable only for your own tasks to enabling your team and driving meaningful business impact at scale.

Building a Personal Brand

Building a personal brand becomes increasingly important as we grow in our careers. I first learned this from one of our marketing managers, who once asked me to Google myself just to see what shows up. That is your personal brand. You get to decide whether you want people to see your Instagram and TikTok, or your LinkedIn, your articles, and your website, when they search your name. And that choice makes a huge difference. (For example, I don't use my real name on TikTok. Not because I'm trying to hide anything, but simply because it's an entertainment space for me, and I don't want it to be the first thing someone sees when they Google my name.)

Ultimately, it's up to you to show the world who you are and what you're capable of. Working hard is essential, but showcasing your achievements matters just as much. That's how you get recognized and valued.

Last but not least, you have so much time ahead. Now that you have an idea of what to expect on your journey to becoming a Data Scientist, prepare yourself. Your journey starts now, and with dedication and curiosity, you can grow into a professional who truly makes an impact in the world of Data Science. Cheers!

Forecasting Species Population Dynamics under Climate Change Scenarios

Dr Vihanga Gunadasa
Postdoctoral Research Fellow
TERN Australia
The University of Adelaide, Australia

Looking Ahead: Why Forecasting Matters

Ecologists today face a profound challenge — anticipating how species and ecosystems will respond to an increasingly uncertain climate. Predicting the future is never easy, but doing so in ecology is particularly complex: species interactions, environmental variability, and human pressures all interact in unpredictable ways. Yet such forecasts are vital for conservation and land management.

Traditional ecological models rely on historical data, explaining how species responded to past conditions. While informative, these models often struggle to predict what lies beyond the observed record. For conservation planning, however, managers need forecasts that extend into the near future, over years or decades, to inform timely, adaptive decisions.

This work focuses on developing near-term population forecasts that bridge this gap, using projected rainfall data under different climate-change scenarios.

The Simpson Desert as a Natural Laboratory

The research was conducted in the Simpson Desert, a vast and striking landscape covering roughly 170,000 km^2 across central Australia with mainly dune fields and remainder comprising of clay pans, rocky outcrops, and gibber plains. The Desert Ecology Research Group (DERG) at the University of Sydney has been conducting long-term ecological monitoring in a region of 8000 km^2 spanning the border between Queensland and the Northern Territory since 1990 (Wardle & Dickman, 2015; Wardle & Dickman, 2018a; Wardle & Dickman, 2018b).

Climatic conditions are highly variable, alternating between extended dry periods (“busts”) and productive “boom” phases following summer rainfall (Greenville, Wardle, & Dickman, 2013). Temperatures range from over 40°C in summer to below 5°C in winter, while annual rainfall varies spatially, averaging between 157 mm and 258.5 mm at nearby weather stations.

For our study, two small mammal species, the **sandy inland mouse** (Pseudomys hermannsburgensis) and the **lesser hairy-footed dunnart** (Sminthopsis youngsoni), are the focus. Despite being similar in size (8-14g), they exhibit contrasting population dynamics. P. hermannsburgensis undergoes dramatic boom-and-bust cycles following rainfall events, while S. youngsoni maintains more stable populations through dry and wet years. These contrasts provide a natural experiment for testing the sensitivity of different species to changing environmental conditions.

Climate Scenarios and Forecasting Models

Using over two decades of population data on these two species with contrasting dynamics from a site where they were abundant, we found that tailoring statistical models to species-specific dynamics, rather than applying a one-size-fits-all approach, markedly improved both interpretability and reliability.

Rainfall is a key driver of ecosystem productivity, stimulating vegetation growth and increasing food and shelter availability. Thus, to forecast future population trends, high-resolution rainfall projections under three greenhouse gas emissions management pathways were sourced from the Phase 6 of the Coupled Model Intercomparison Project (CMIP6) (Chapman, Syktus, Trancoso, Toombs, & Eccles, 2024).

The pathways used to represent alternative futures were:

1. SSP126 - sustainability-focused with reduced global emissions,
2. SSP245 - middle-of-the-road with emissions remaining steady, and
3. SSP370 - regional rivalry with rising emissions and temperatures.

By integrating these rainfall projections with the long-term abundance data (1990–2022), the study generated forecasts up to 2035; 4 years, chosen to be relevant to on-ground management actions and 12 years to reflect a period of years within another ENSO cycle is likely to have happened.

The modelling used **multivariate generalized additive models (MVGAMs)** implemented in R via the ***mvgam*** package (Clark & Wells, 2023). MVGAMs effectively combine nonlinear species–environment relationships, site-level effects, and temporal dynamics, with **Gaussian Process (GP)** components that model latent trends shared among sites. Crucially, forecasts were probabilistic rather than deterministic, producing prediction intervals that quantify uncertainty around each abundance forecast.

What the forecasts tell us?

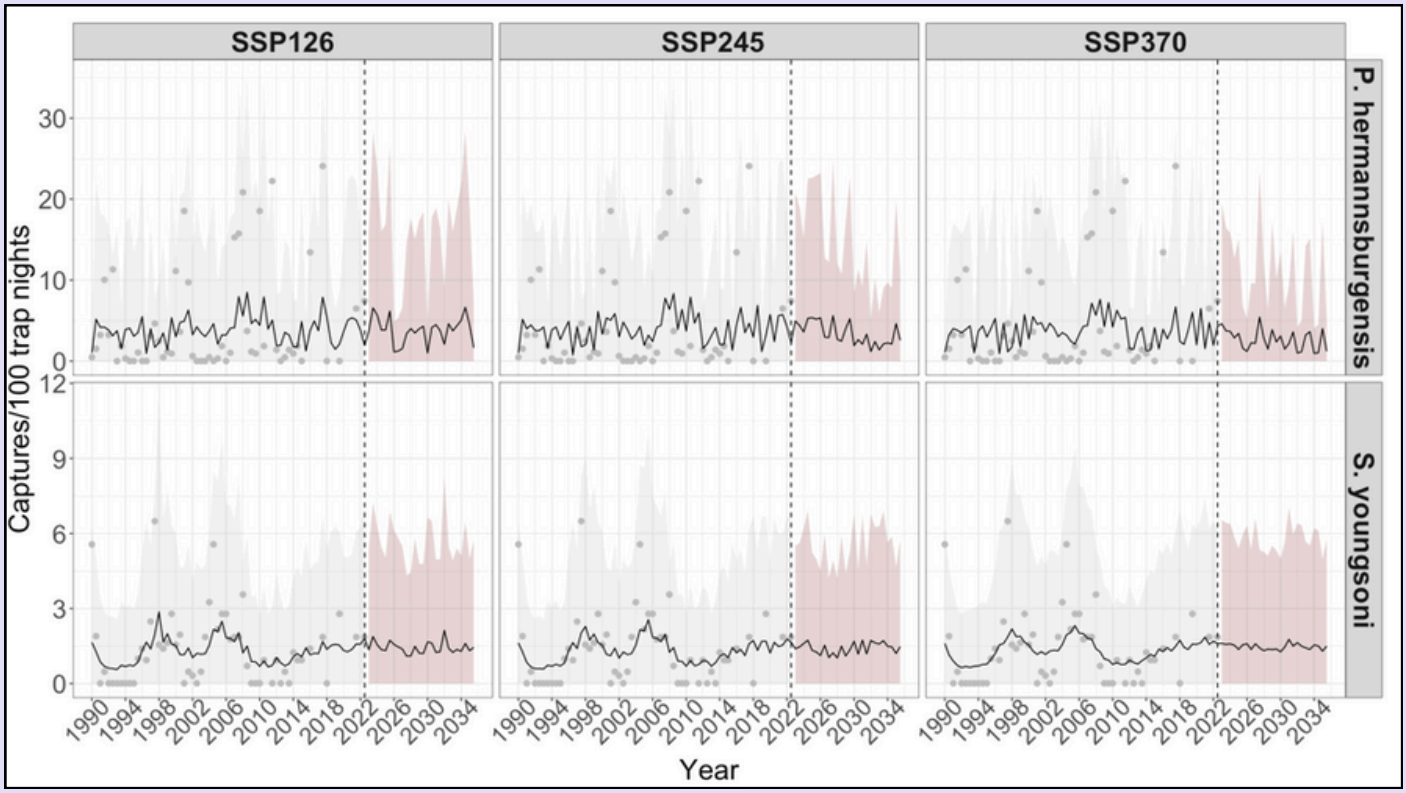


Figure 1 Hindcasts, forecasts and uncertainty representation for Pseudomys hermannsburgensis and Sminthopsis youngsoni captures, at a site where they were abundant, based on the multivariate generalized additive models with Gaussian Process latent trend components. Each column corresponds to forecasts under a different climate change scenario: SSP126 (1.8°C increase by 2100), SSP245 (2.7°C increase by 2100), and SSP370 (3.6°C increase by 2100). Dots represent observed captures, while the black solid line shows posterior hindcasts (left of 2022) and forecasts (right of 2022). The grey and pink shaded regions illustrate the 95% prediction intervals.

Table 1 Summary of key patterns observed in Figure 1, highlighting the species-specific responses of Pseudomys hermannsburgensis and Sminthopsis youngsoni across the three climate change scenarios (SSP126, SSP245, SSP370).

Species	SSP126 (Sustainability Pathway)	SSP245 (Middle-of-the-Road Pathway)	SSP370 (Regional Rivalry Pathway)
Pseudomys hermannsburgensis	Stable population trends, limited variability, reflects best-case scenario under effective climate mitigation.	Moderate fluctuations with periodic peaks and troughs in shorter forecast horizon, long-term trends consistent with historical patterns.	Pronounced short-term declines indicating sensitivity to poor environmental management and increasing pressures.
Sminthopsis youngsoni	Stable populations with limited fluctuations, less sensitive to climate variability.	Stable but may experience gradual declines in short-term	Largely stable across forecast horizons, potential long-term reductions under sustained high emissions.

What did we learn?

Both P. hermannsburgensis and S. youngsoni appear relatively resilient to projected climate change, despite their differing population dynamics. However, increased environmental variability, particularly in food availability and interspecific interactions such as competition and predation, may still drive population declines, especially in species with pronounced boom–bust cycles, even though such fluctuations are unlikely to cause stochastic extinction. Short-term forecasts (e.g., 4 years) can guide rapid, on-ground responses to stabilize populations during critical periods, whereas long-term forecasts (e.g., 12 years) provide insight into broader ecological trajectories, such as the influence of ENSO cycles. These projections highlight the importance of aligning management actions with the temporal scale of anticipated change and adopting strategies that enhance habitat connectivity, long-term monitoring, and climate adaptation.

Statistically, the 95% prediction intervals for both species captured all observed hindcast values, though the wide intervals for P. hermannsburgensis indicate high uncertainty rather than strong predictive precision. Forecast intervals for this species appropriately reflected the potential for extreme boom events, with slightly lower uncertainty under the high-emissions scenario (SSP370) and stable uncertainty across 4- and 12-year horizons. In contrast, S. youngsoni showed narrower and more stable prediction intervals across scenarios and timeframes, consistent with its less variable dynamics and limited sensitivity to rainfall alone. Collectively, these results demonstrate that the model yields well-calibrated uncertainty estimates that align with each species' ecological behaviour, reinforcing the value of probabilistic forecasts for guiding adaptive conservation strategies.

Co-authors

This study was carried out as a part of my PhD at the University of Sydney supervised by

- Professor Glenda Wardle, The University of Sydney, Australia
- Dr Aaron Greenville, The University of Sydney, Australia

References

Chapman, S., Syktus, J., Trancoso, R., Toombs, N., & Eccles, R. (2024). Projected changes in mean climate and extremes from downscaled high-resolution CMIP6 simulations in Australia. Weather and Climate Extremes, 46, 100733.

Clark, N. J., & Wells, K. (2023). Dynamic generalised additive models (DGAMs) for forecasting discrete ecological time series. Methods in Ecology and Evolution, 14(3), 771-784.

Greenville, A. C., Wardle, G. M., & Dickman, C. R. (2013). Extreme rainfall events predict irruptions of rat plagues in central Australia. Austral Ecology, 38(7), 754-764.

Wardle, G., & Dickman, C. (2015). Desert Ecology Plot Network: Mammal, Reptile and Vegetation Data Associated with Weather, Simpson Desert, Western Queensland, Australia, 1990–2011. Retrieved January 16, 2025, from Long Term Ecological Research Network: http://www.ltern.org.au/knb/metacat/ltern.111.57/html

Wardle, G., & Dickman, C. (2018a). Desert Ecology Plot Network: Mammal Abundance Plot-data, Simpson Desert, Western Queensland, 1990+. Retrieved January 16, 2025, from Long Term Ecological Research Network: http://www.ltern.org.au/knb/metacat/ltern6.196.8/html

Wardle, G., & Dickman, C. (2018b). Desert Ecology Plot Network: Weather Data (daily and monthly), Simpson Desert, Western Queensland, 1995+. Retrieved January 16, 2025, from Long Term Ecological Research Network: http://www.ltern.org.au/knb/metacat/ltern6.194.7/html

The Lady with the Lamp Who Lit the Way with Data: Florence Nightingale, the Data Scientist

Dr. Lakmini Wijesekara
BSc (Hons) (UoC), MFE (UoC), PhD (WSU)
Casual Lecturer at Western Sydney University and Sydney Polytechnic Institute

When we hear the name Florence Nightingale, famously known as “the Lady with the Lamp”, nursing is often the first image that comes to mind. She is widely known as the mother of modern nursing, who transformed it into a respected profession. This article, however, takes a different perspective. Here, we look at her as an example of a data scientist in the true sense of the word.

Figure 1:Florence Nightingale with her lamp at a patient’s bedside (chromolithograph), courtesy of Wellcome Collection via Wikimedia Commons, CC BY 4.0.

(Image: https://commons.wikimedia.org/wiki/File:Crimean_War%3B_Florence_Nightingale_with_her_lamp_at_a_patient_Wellcome_V0015794.jpg)

Bio in a snapshot

Born on 12 May 1820 in Florence, Italy, into a wealthy British family, Nightingale grew up in an environment that strongly supported women’s education, an uncommon privilege at the time. She studied mathematics, history, philosophy, classical literature and languages. From an early age, she showed a remarkable aptitude for collecting, organizing and analysing data. Despite the social expectations placed on women of her background, Nightingale chose a different path. In 1844, she decided to become a nurse, believing she was called by God to serve others, and she set aside the traditional roles of wife and mother.

Statistical contributions that saved lives

Nightingale was not only a nurse but also a pioneer in statistics who used data to improve healthcare and save lives. Supported by her father, she developed strong skills in collecting and analysing data.

During the Crimean War (1853–1856), while working at the Scutari Hospital in Turkey, she observed alarmingly high mortality rates among soldiers, reaching about 42.7%. Through careful data collection and analysis, she discovered that most deaths were not caused by battle wounds but by preventable diseases linked to poor hospital conditions, including overcrowding, inadequate ventilation, poor drainage, and unhygienic surroundings.

These findings led to sanitary reforms (including the dispatch of the Sanitary Commission), resulting in a dramatic reduction in mortality to about 2.2%. This work is widely regarded as one of the earliest examples of evidence-based healthcare. Her influence extended beyond the war, contributing to major public health improvements in Britain and India through her reports and statistical analyses. In recognition of her contributions to statistics, she became the first woman elected to the Royal Statistical Society in 1859.

Data visualization skills

Nightingale understood that data needed to be clearly presented to policymakers to create a change.
Her most famous chart is the polar area diagram, also known as the "coxcomb" or Nightingale rose diagram (Figure 2). In this chart, the distance from the centre to the outer edge of a segment represents the number of data points in that category. The greater the distance, the higher the value. The diagram consists of 12 slices, each representing a month of the year. Each slice shows the number of deaths for that month, while colour adds another layer of information, indicating the cause of death. What an impressive way to visualise data nearly two centuries ago!
At a time when many policymakers found statistics difficult to understand, these visuals helped them quickly grasp the severity of the situation. This marked an early example of how data can be used to inform decisions.

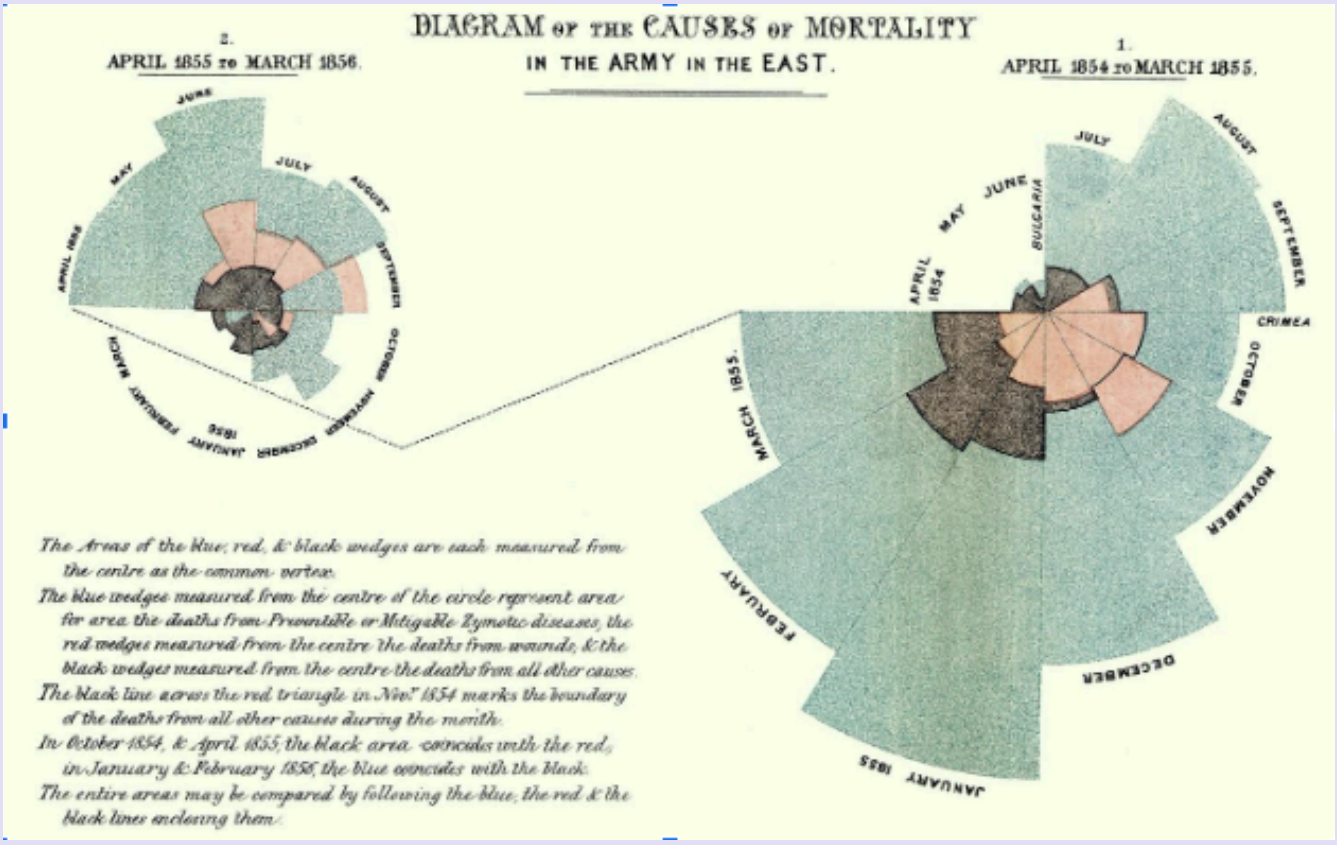


Figure 2: Florence Nightingale's 1858 polar area (coxcomb)diagram showing mortality causes among British soldiers in the Crimean War.
Source: Florence Nightingale, Notes on Matters Affecting the Health, Efficiency and Hospital Administration of the British Army (1858), Public Domain.

The essence of a data scientist

Data Science is an interdisciplinary field that uses methods and algorithms to extract knowledge and insights from data. Nightingale, with her expertise in healthcare, collected, analysed, presented, and interpreted data long before modern computers existed. She used data visualization to explain her findings and applied that knowledge in decision-making, leading to important healthcare reforms. Simply put, she used data to save lives, truly embodying the very essence of a data scientist.

Her legacy reminds us that data, when used wisely, has the power to light the way.

References and further reading

Britannica. Florence Nightingale. Retrieved December 15, 2025, from https://www.britannica.com/biography/Florence-Nightingale

Kopf, E. W. (1916). Florence Nightingale as statistician. Publications of the American Statistical Association, 15(116), 388–404. https://doi.org/10.2307/2965763

The Conversation. (2020, March 26). The healing power of data: Florence Nightingale's true legacy. https://theconversation.com/the-healing-power-of-data-florence-nightingales-true- legacy-134649

Wikipedia. Florence Nightingale. Retrieved December 15, 2025, from https://en.wikipedia.org/wiki/Florence_Nightingale

Professor Rob Hyndman: A visionary who transformed modern forecasting

Across the global statistics community, few names are held in the same esteem as *Professor Rob J. Hyndman*. Renowned for reshaping the practice and teaching of time series forecasting, Rob stands as one of the world's most influential applied statisticians. His research, textbooks, open-source software, and policy contributions have had a substantial impact, reaching industry, government, academia, and millions of learners across the world.

Where curiosity took shape: the early years of a forecasting pioneer

Rob's academic journey began at the University of Melbourne, where he completed his BSc (Hons) in 1988. His PhD, completed in 1992 under the supervision of Peter J. Brockwell and Gary K. Grunwald, was in stochastic partial differential equations, far from forecasting. Yet, it was during his PhD years that a serendipitous moment set him on the path that would define his career.

His supervisor was preparing to run a workshop on forecasting for professionals and asked Rob if he could help. Although he had never taken a forecasting unit in his life, he embraced the challenge. To prepare, he studied the well-known forecasting textbook by Spyros G. Makridakis and Steven C. Wheelwright. Within months, he not only mastered the field but developed a genuine passion for forecasting and included it in his doctoral research. Later, when Makridakis and Wheelwright sought a third author for the next edition of the book, Rob was chosen, propelling him into international prominence.

This formative experience also shaped his philosophy: to be open to new problems, to learn quickly, and to focus on real-world relevance, principles that have defined his career ever since.

A career of impact and distinction

After completing his PhD, Rob began as a lecturer at the University of Melbourne before joining Monash University, where he rose to full professor in 2003, only ten years after graduating. At Monash he took on several major leadership roles, including Director of Consulting, Director of the Business and Economic Forecasting Unit, and later Head of the Department of Econometrics and Business Statistics from 2019 to 2022. These roles reflect both his academic influence and his commitment to building strong links between research, teaching, industry, and policy.

Rob also held visiting appointments at Colorado State University, the Australian National University, and Eindhoven University of Technology, contributing to broad international collaborations.

A body of work that reframed an entire discipline

Rob's research has fundamentally shaped modern time series forecasting. His work on automatic forecasting, forecast reconciliation, functional time series, feature-based analysis, and computational time series methods has become widely adopted both in academia and industry. Many of these ideas form the backbone of forecasting systems used by organisations worldwide, including Walmart, Nestlé, SAP, GrandVision, Huawei, and the Bank of New York Mellon.

Since 1991, Rob has published more than 250 papers, chapters, and books across a wide range of statistical topics. His work appears in top journals such as *Biometrika*, *Journal of the American Statistical Association*, *Journal of Royal Statistical Society (Series B)*, *Journal of Computational and Graphical Statistics*, and the *International Journal of Forecasting*. On Google Scholar, his h-index of 88 and over 75,000 citations underscore his influence, placing him among the most highly cited statisticians in the world.

He has also been extraordinarily successful in research funding, securing more than $35.7 million in external grants with collaborators since 2000.

From code to community: open-source impact at scale

One of Rob's most enduring contributions is his commitment to freely accessible statistical tools. He has co-authored more than 65 R packages, an extraordinary contribution to the open-source community. These packages have been downloaded over 144 million times since 2015. His first major package, *forecast*, emerged from his consulting projects over two decades ago and is now one of the most widely used forecasting tools globally. For many practitioners, students, and educators, it is the entry point into forecasting with R.

His online textbook *Forecasting: Principles and Practice* (written with his colleague George Athanasopoulos) has revolutionised forecasting education. Free, online, and continually updated, it receives more than 25,000 pageviews per day and is used as a primary textbook at universities around the world. Another influential book, *Forecasting with Exponential Smoothing*, formalised the state space approach now widely used in practice. Together, these works have changed how forecasting is taught and understood.

Beyond forecasting textbooks, he authored *Unbelievable*, a candid and reflective work in which he shares his personal journey from religious faith to an evidence-driven perspective, explaining how his commitment to evidence and reason ultimately led him, as a university professor, to abandon religion and become an unbeliever.

Global leadership in research, publishing, and academic excellence

For nearly fifteen years, Rob served as Editor-in-Chief of two of the most respected journals in statistics and statistical computing: the *International Journal of Forecasting* and *the R Journal*, as well as an Editor of the *Journal of Statistical Software* and Theory and Methods Editor of *the Australian and New Zealand Journal of Statistics*. His leadership helped raise the profile and rigor of both journals, shaping the research agenda for the future of forecasting and open-source methodologies.

He is a Fellow of the Australian Academy of Science, the Academy of the Social Sciences in Australia, and the International Institute of Forecasters, a rare and remarkable combination that highlights the breadth of his influence. Among his most prestigious honours are the Moran Medal (2007) and the Pitman Medal (2021), alongside numerous Monash University awards for research, teaching, supervision, and impact. In 2022, he received the Australian Award for University Teaching, and in 2025, Clarivate Analytics named him a Highly Cited Researcher.

Forecasting in crisis: leadership during COVID-19

During the COVID-19 pandemic, Rob played a key role in national forecasting and modelling efforts. Working alongside Australia's most prominent epidemiologists, mathematicians, and statisticians, he helped guide government leaders through rapidly changing conditions. His team produced weekly forecasts for all Australian states and territories, constantly updating models to reflect new realities such as variant emergence and vaccination rollouts.

Rob reflected on this work as "a marathon", requiring continuous adaptation and innovation. Despite being new to epidemiological forecasting, he applied his deep forecasting expertise to build ensemble modelling systems that supported critical policy decisions at a time of unprecedented uncertainty.

A teacher, mentor, and lifelong consultant

Rob's impact as a mentor is equally remarkable. He has guided 34 PhD students to completion and continues to supervise new scholars. His supervision is marked by fostering independence, promoting rigor, and empowering his students, an approach I have always summed up with the following quote

"The best teachers show you where to look but don't tell you what to see." – commonly attributed to Alexandra K. Trenfor

Beyond academia, Rob has consulted for hundreds of commercial clients since 1987, spanning Australia, the United States, Europe, the Middle East, and Asia. His work with Australia's Department of Health and Aged Care significantly improved forecasting for the Pharmaceutical Benefits Scheme, reducing forecast errors from nearly $1 billion per year to less than $50 million. His consultancy has ensured that his research aligns with real-world challenges and continues to solve meaningful problems.

Rob often emphasises the importance of tackling real problems rather than only fashionable theoretical ones. His extensive industry engagement stems from his desire to understand the practical difficulties practitioners face and to direct his research toward solutions that genuinely matter. He has long advocated for stronger collaboration between academia and industry, believing it improves teaching, research, and real-world practice. As he once described his love for the discipline

"Statistics provides a way of thinking about the world and a way to understand uncertainty… I love applying a statistical lens to new problems, and I have the most fun when analysing a new dataset and developing the tools needed to understand it."

Life beyond academics

Outside academia, Rob is known for his love of tea, typically enjoying six or seven cups a day, and his enduring enthusiasm for sport. Cricket has long been an important part of his life, including his role as a professionally accredited cricket umpire, though he stepped away from playing at the age of 50 when he felt his bowling no longer posed much of a challenge. He now devotes much of his leisure time to tennis, playing around nine hours each week, a pursuit he hopes to continue for many years to come. Rob and his wife, Leanne, have four children working in diverse fields, each contributing in their own way to making the world better. He plans to retire at the end of 2026 to spend more time with his first grandson, Otis, though he intends to continue contributing through new open-source software and books designed to make statistics accessible to non-technical audiences.

A legacy that will endure

Rob Hyndman's influence extends far beyond his publications, software, and awards. His ideas have transformed forecasting practice; his textbooks have educated millions; his software has become integral to the data science ecosystem; and his leadership has shaped the direction of statistical research.

For me, writing this article has been a profound honour, as a colleague at Monash University and one of his former PhD students. Though I often describe my PhD journey as "army training", it was Rob and my co-supervisor George Athanasopoulos who shaped me into an independent researcher. The lessons I learned, about rigour, curiosity, humility, and perseverance, continue to guide my career.

Professor Rob J. Hyndman is not only an eminent statistician but a visionary leader whose contributions will influence forecasting, statistics, and data-driven decision-making for decades to come. His legacy embodies innovation, integrity, generosity, and unwavering commitment to the advancement of knowledge.

Dr. Shanika L. Wickramasuriya
Assistant Professor
Department of Econometrics and Business Statistics
Monash University, Australia

IASSL STAT ReTreat 2025: Three Days of Learning, Leadership & Lifelong Connections

The first-ever **IASSL STAT ReTreat 2025**, organized by the **Institute of Applied Statistics, Sri Lanka (IASSL)**, brought together 85 Statistics undergraduates from 11 universities across the country for three days of collaboration, inspiration, and community-building. Set against the scenic and serene setting of the National Institute of Co-operative Development (NICD), Polgolla, the retreat offered a rich blend of academic sessions, wellness activities, team challenges, and creative events. Over three dynamic days—17th to 19th October 2025, students immersed themselves in a carefully curated program designed to strengthen their statistical reasoning, communication skills, leadership potential, and professional identity.

Guided by the theme "Building Community through Fun and Expression," the retreat created a vibrant space where young statisticians could learn, network, explore creativity, and grow both personally and academically.

Participants represented a diverse range of institutions nationwide, including the University of Sri Jayewardenepura, University of Kelaniya, University of Colombo, University of Peradeniya, University of Ruhuna, South Eastern University of Sri Lanka, Sabaragamuwa University of Sri Lanka, Wayamba University of Sri Lanka, General Sir John Kotelawala Defense University (KDU), SLIIT, and NSBM Green University.

A Glimpse into the Experience

Day 1: Arrival & Onboarding – Setting the Tone

The retreat begins with participant registration, group formation, and informal networking. Students are encouraged to engage with peers from diverse universities, creating the first spark of a supportive statistical community. The evening welcome gathering sets a warm and enthusiastic tone, followed by dinner.

Day 2: Connection, Collaboration & Creativity

Day 2 is where the retreat's energy truly comes alive. Starting with an early morning aerobic session, participants begin the day refreshed and energized.

The Opening Ceremony formally inaugurates the retreat, followed by a lineup of immersive events:

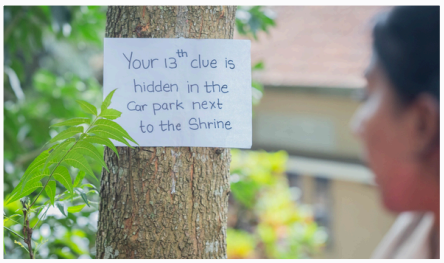
Event 1: Data Storytelling Challenge (Part 1) — "From Numbers to Narrative"

Data is powerful only when communicated effectively. In this session, students form teams, explore datasets, and begin constructing compelling narratives—developing their analytical thinking and storytelling skills.

Event 2: Challenger Hunt - Clue Solving

A thrilling outdoor activity where teams raced against time to solve a statistics-themed crossword puzzle. Participants followed a series of clues hidden across the venue, uncovering each question through exploration and teamwork. Combining logic, collaboration, and statistical knowledge, the hunt transformed learning into adventure, strengthening bonds through a spirited blend of problem-solving and fun.







Event 3: Vision in Statistics - "Inspiration, Expertise, and Future Pathways"

Experts and academics shared insights on topics like sampling surveys, teaching statistics, and consultancy. A panel discussion on "Future of Careers in Statistics" inspired participants to envision their professional growth and leadership in the evolving data driven world.



Event 4: Entertainment & Expression Night - "StatStage: Beyond the Numbers"

An evening of creativity and expression where each team presented a short drama inspired by statistical themes. The event encouraged teamwork, humor, and artistic flair, allowing participants to blend storytelling with the world of data. Through lively performances, teams showcased how statistics can come alive on stage connecting numbers with narrative and creativity.





Day 3: Inspiration, Insight & Closure

The final day begins with a calming yoga session to promote mindfulness and clarity.

Event 5: StatTalks – The Great Debate

Teams engage in spirited debates on statistical and societal topics, sharpening their analytical and communication skills. The final round introduces a surprise topic, challenging participants to think on their feet and articulate data-driven arguments with confidence.



Event 1 (Part 2): Data Storytelling Challenge – Presentations & Q&A

Teams return to present their polished data stories before a panel. This session emphasizes interpretation, visualization, communication, and defending analytical choices—essential skills for any statistician.



Closing Ceremony

The retreat concluded with a series of meaningful segments, including Awards and Recognitions, participant feedback, a vote of thanks, and the official closing of IASSL STAT ReTreat 2025. A shared lunch marked the final moment of togetherness before departure, as participants returned home inspired, connected, and more confident in their statistical journey.

Why STAT ReTreat 2025 Matters

STAT ReTreat is more than an event—it is a strategic investment in the future of the statistical profession in Sri Lanka. Through this initiative, the IASSL creates opportunities for students to gain exposure to real-world analytical thinking, interact with experts and role models, and develop essential soft skills such as communication, leadership, teamwork, and creativity. By doing so, IASSL actively contributes to the betterment of the statistical community by fostering lasting professional networks and opening pathways to future academic and career opportunities. The retreat thus stands as a transformative platform, nurturing a vibrant community of young statisticians ready to shape the data-driven world of tomorrow.

Celebrating Achievements of IASSL Members

Professor Promotion – Dr. U. Shanika Thathsarani

The Institute of Applied Statistics, Sri Lanka (IASSL) proudly congratulates Dr. U. Shanika Thathsarani on her promotion to Professor in Statistics at the Department of Economics and Statistics, Sabaragamuwa University of Sri Lanka (SUSL).

She holds a Doctor of Philosophy (Ph.D.) from Wuhan University of Technology, China, an M.Phil. in Applied Statistics from the University of Peradeniya, and a B.A. (Special) Degree in Statistics from Sabaragamuwa University of Sri Lanka. Her academic journey reflects a strong foundation in both theoretical and applied aspects of Statistics, complemented by continuous professional development through advanced training in statistical software and modern analytical tools.

Professor Thathsarani joined the Department of Economics and Statistics, SUSL in 2010 as a lecturer in Statistics (Temporary) and has since demonstrated exceptional commitment to academic excellence, research advancement, and institutional service. Over the years, she has contributed significantly to the growth of the Statistics discipline at SUSL through innovative teaching, curriculum development, and student mentorship.

Her research focuses on modelling survival data, time series analysis, multivariate indices, and Structural Equation Modeling. Professor Thathsarani's scholarly work has been published in reputed national and international journals, addressing contemporary analytical challenges in economics, finance, and social sciences.

In addition to her research and teaching, she has rendered valuable service to the Institute of Applied Statistics, Sri Lanka, as a member of the Academic Training Committee (ATC), contributing to capacity-building initiatives and professional training programs.

Professor Thathsarani's promotion is a fitting recognition of her scholarly excellence, professional integrity, and dedication to the advancement of Statistics education in Sri Lanka. The IASSL extends its heartfelt congratulations to Professor Shanika Thathsarani and wishes her continued success in all future academic and professional pursuits.

Celebrating Achievements of IASSL Members

Prof. Isuru Udayangani Hewapathirana

The Institute of Applied Statistics Sri Lanka (IASSL) warmly congratulates Prof. Isuru Udayangani Hewapathirana on her promotion to the rank of Professor at the Software Engineering Teaching Unit, Faculty of Science, University of Kelaniya. This achievement stands as a testament to her academic excellence, impactful research, dedicated teaching, and sustained professional service.

Prof. Hewapathirana is a proud alumna of Vihara Maha Devi Balika Vidyalaya, Kiribathgoda, and obtained a B.Sc. Honours in Statistics (First Class) from the University of Colombo in 2010. She completed her PhD in Statistics at the University of Canterbury, New Zealand, in 2017, under a fully funded scholarship supported by the Crime Science Research Institute of Wynyard Company, New Zealand, reflecting her strong academic merit and international exposure.

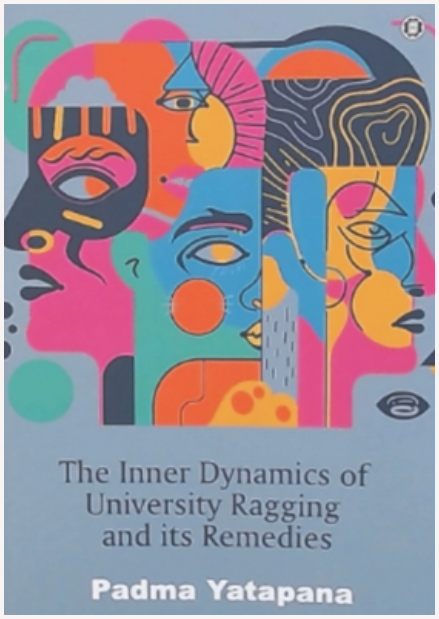
Before joining academia, Prof. Hewapathirana served as a Senior Data Scientist at RS Metrics Asia (Pvt) Ltd, gaining valuable industry experience that continues to inform her academic work. Since entering academia in 2018, she has successfully integrated theoretical rigor with practical insight.

Her research expertise encompasses machine learning, deep learning, data analytics pipelines, and graph data mining, with publications indexed in Scopus, Web of Science, and SCImago, demonstrating both quality and global relevance. As an educator, she has contributed significantly to teaching Elementary Statistics, Business Intelligence, Quantitative Modelling of Business Systems, Machine Learning, and Research Methods, and is widely respected for her commitment to academic standards and student development.

A dedicated member of IASSL since 2010, Prof. Hewapathirana has actively contributed to the professional community through service as a reviewer for national and international journals and conferences, Associate Editor of the Sri Lanka Journal of Applied Statistics (2023), Editor (2024), and Assistant Secretary of IASSL from 2021 and 2022.

Book Publications

Mrs. Padma Yatapana Launches Scholarly Work on University Ragging and Its Remedies



The Institute of Applied Statistics Sri Lanka (IASSL) is pleased to highlight the launch of an important scholarly publication that addresses one of the most persistent and complex challenges in higher education: university ragging.

Ms. Padma Yatapana, a long-standing member of IASSL, launched her book titled "විශ්වවිද්යාලවල නවක වදයේ ඇතුලන්තය සහ එයට පිළියම්" together with its English version, The Inner Dynamics of University Ragging and Its Remedies, on 5 December 2025 at the Institute of Technology, University of Moratuwa (ITUM).

Ms. Yatapana is a former member of the academic staff of the University of Moratuwa and ITUM, with more than 35 years of dedicated service to the Sri Lankan university system.

She is also a committed member of IASSL and has served on its Executive Committee for more than 13 years, reflecting her sustained engagement with the applied statistics community in Sri Lanka. The book provides a comprehensive and insightful examination of the psychological and social roots of university ragging, with particular attention to group dynamics, power relations, and cult-like behavioral patterns. Moving beyond descriptive analysis, the author proposes practical and context-sensitive strategies aimed at fostering safer, more respectful, and inclusive learning environments within universities and other higher education institutions.

The book launch was held at ITUM and was graced by Prof. Prabha Manurathne, Director of the Centre for Gender Equality and Equity and a member of the National Task Force for the Prevention of Violence and Ragging, who attended the event as the Chief Guest. Her presence underscored the national importance of the issues addressed in the publication and its relevance to ongoing policy and institutional efforts to prevent violence and ragging.

The scholarly and institutional value of the book is further strengthened by contributions from several eminent leaders of the University of Moratuwa. The preface is written by Prof. G. T. F. de Silva, former Vice-Chancellor, while the postface is contributed by Prof. A. K. W. Jayawardene, also a former Vice-Chancellor. In addition, a message by Major General S. K. Thirunavukarasu, Director of ITUM, adds an important administrative and institutional perspective to the work.

IASSL congratulates Ms. Padma Yatapana on the successful launch of this timely and impactful publication and acknowledges her continued contributions to academia, student welfare, and scholarly discourse in Sri Lanka.

Awarding New publications to the Chief Guest, Prof Prabha Manurathne, Director/ CGEE and a member of the National Task Force for Prevention Violence and Ragging

Prof. G.T. F de Silva and Prof. Ananda Jayawardana, Former Vice Chancellors of University of Moratuwa.

Book Publications

Prof. S. Samita Publishes Insightful Textbook to Empower Statistics Students

Prof. S. Samita, Senior Professor at the University of Peradeniya and Council Member of the Institute of Applied Statistics Sri Lanka, has authored an important new textbook, Foundations of Statistics: Theory and Practice, published by the Postgraduate Institute of Agriculture, University of Peradeniya. The official book launch is scheduled for 30th January 2026.

Statistics is studied across disciplines but is often seen as challenging due to difficulties in building strong conceptual foundations. While many textbooks exist, few truly help learners grasp the subject. Prof. Samita's book addresses this gap, providing a clear, example-based approach aimed at undergraduate and postgraduate students with little prior exposure to statistics. Selected chapters also benefit A/L statistics teachers.

The textbook emphasizes conceptual understanding with practical examples, covering topics such as introduction to statistics, variable classification, measurement scales, summary measures, probability, hypothesis testing, and relationships between variables. Hypothesis testing is discussed separately for the data of each scale of measurement. Especially for the methods for nominal and ordinal data, emphasis is exact tests. Further, the hypothesis testing is presented in a structured, step-by-step manner, with practical implementation using SAS OnDemand for Academics, which is a free, cloud-based statistical software.

This publication is a valuable resource for university level students, educators, and practitioners, offering guidance to progress confidently to statistical studies. We congratulate Prof. Samita on this significant contribution to statistics education and wish him continued success and strength to produce more such insightful works in the future.

AWARDS

Dr. Lakshika Nawarathna, from the Department of Statistics and Computer Science, University of Peradeniya, has been honored with the Silver Award in Mathematics and Statistics at the National Educator Awards (NEA) 2025.

The National Educator Awards is a prestigious initiative dedicated to honoring outstanding educators across Sri Lanka who have made remarkable contributions to their respective academic disciplines. Organized by the National Educator Awards Committee and supported by the Ministry of Education, the NEA recognizes excellence in teaching, scholarly work, research, and contributions to national educational development.

Awards are presented under four categories, Gold, Silver, Bronze, and Emerging Awards across multiple disciplines. The evaluation framework highlights excellence in teaching and academic contribution, research and scholarship, as well as institutional, national, and international service.

Receiving the Silver Award in Mathematics and Statistics recognizes Dr. Nawarathna's exceptional dedication to advancing teaching and learning, promoting research excellence, and contributing meaningfully to the national development of the discipline. This honor underscores the critical role of Mathematics and Statistics in scientific advancement, technology, and evidence-based decision-making, while also highlighting the importance of committed academic leadership in strengthening Sri Lanka's educational landscape. This national recognition stands as a testament to Dr. Nawarathna's sustained professional excellence and her significant contributions to higher education in Sri Lanka.

Conference

International Conference on Data Science and Artificial Intelligence 2025 (DS&AI 2025): Fostering Regional Collaboration and Innovation

The 3rd International Conference on Data Science and Artificial Intelligence (DS&AI 2025), held from 19–21 November 2025 at the Joint Research and Demonstration Centre, University of Peradeniya, Sri Lanka, serves as a key platform for advancing research, innovation, and collaboration in data science and artificial intelligence across the Southeast Asian region. The conference is jointly organized by the Department of Statistics and Computer Science, University of Peradeniya; the Postgraduate Institute of Science (PGIS), University of Peradeniya; and the Department of Statistics, University of Sri Jayewardenepura.

The conference provided a vital forum for researchers and practitioners from both developed and developing countries to exchange ideas, share expertise, and engage with the latest advances in data science and artificial intelligence. The first two conferences were successfully held in Bangkok, Thailand (2023), and Medan, Indonesia (2024), each making a meaningful contribution to strengthening the regional data science and AI community. With a strong focus on capacity building and applied research, DS&AI 2025 stimulated local interest, promoted innovation, and encouraged interdisciplinary collaboration across data science and AI.

The conference also fostered partnerships among academics, industry professionals, and policymakers, supporting the development of innovative, regionally relevant solutions. This year's event has attracted participants from Germany, Japan, the Netherlands, the Philippines, Portugal, Thailand, and Sri Lanka, reflecting its growing international recognition and impact.

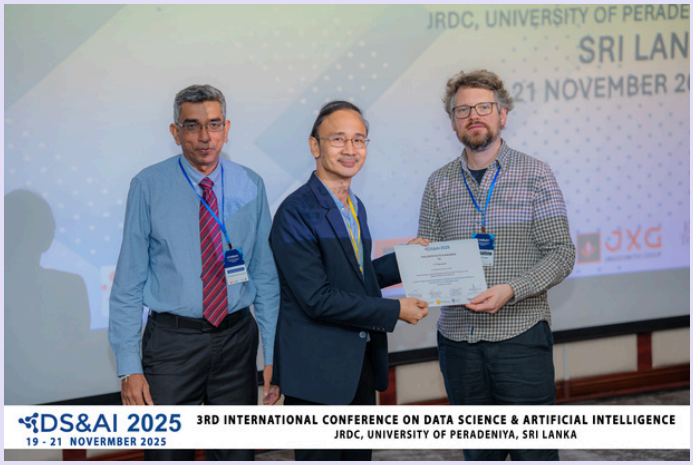
Reflecting its prestige, DS&AI 2025 received an impressive 92 submissions from around the world. Each paper underwent a rigorous review process conducted by a dedicated panel of international Program Committee members. From these, 22 high-quality papers were selected for presentation, resulting in a competitive acceptance rate of 24%. The accepted papers span a diverse range of cutting-edge areas in data science and artificial intelligence, including Large Language Models and Advanced Natural Language Processing, Explainable AI and Bias Detection, Time Series Forecasting and Predictive Modeling, and Computer Vision and Deep Learning.

The main organizing committee comprised a distinguished team of academics and professionals representing leading institutions across the region and beyond. The committee was led by Prof. Chutiporn Anutariya (School of Engineering and Technology, Asian Institute of Technology, Thailand), Prof. Dr. Marcello Bonsangue (LIACS, Leiden University, the Netherlands), Prof. Amalka Pinidiyaarachchi (Department of Statistics and Computer Science, University of Peradeniya, Sri Lanka), Dr. Hakim Usoof (Department of Statistics and Computer Science, University of Peradeniya, Sri Lanka), and Prof. T. G. I. Fernando (Faculty of Applied Sciences, University of Sri Jayewardenepura, Sri Lanka), who served as Program Committee Co-Chairpersons.

Dr. Chitsutha Soomlek (Khon Kaen University, Thailand) contributed as Publicity Chair, while Dr. Hemalika Abeysundara and Dr. Lakshika Nawarathna (Department of Statistics and Computer Science, University of Peradeniya, Sri Lanka) served as Conference Co-Secretaries. The committee was further supported by the dedicated Conveners of the various sub-committees, whose collective efforts ensured the successful planning and execution of the conference.

The conference was graced by Prof. Terrence Madhujith, Vice-Chancellor of the University of Peradeniya, as the Chief Guest. In his address, he highlighted the growing importance of data science and artificial intelligence in driving academic excellence, innovation, and national development, and emphasized the role of universities in fostering interdisciplinary research and global collaboration. The conference featured four eminent keynote speakers who shared their expertise on the evolving landscape of AI. Dr. Romesh Ranawana (Dialog Axiata PLC & Chairman, National AI Strategy Committee of Sri Lanka) delivered a keynote titled “Beyond the Hype: Creating Impact with AI,” exploring how AI can drive real-world progress. Prof. Teeradaj Racharak (Tohoku University, Japan) presented “Towards Verifiable and Trustable AI from Multiple Perspectives,” emphasizing the importance of reliability and ethics in AI systems. Prof. Mahesan Niranjan (University of Southampton, UK) discussed “Machine Learning in Biomedical Problems,” highlighting the transformative role of AI in healthcare research. Dr. Dilrukshi Gamage (University of Colombo School of Computing, Sri Lanka) spoke on “Human-Centered Pathways for AI and Machine Learning,” underscoring the importance of designing AI technologies that prioritize human values and well-being.

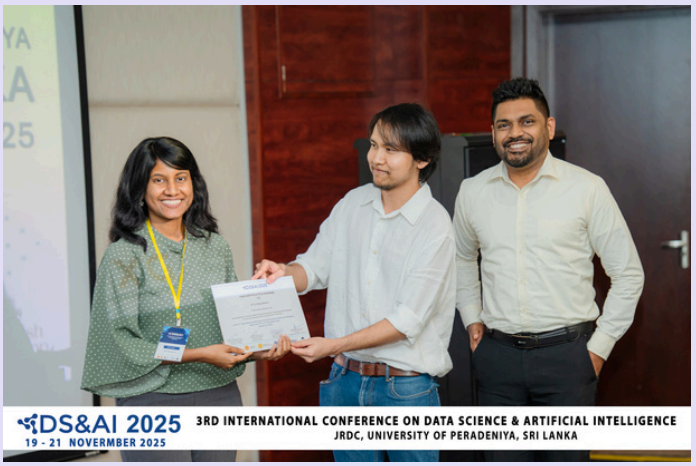
In addition to the main conference, a series of pre and post-conference workshops were offered to participants hands-on learning experiences led by international experts. These include Collaborative Learning in Computer Science Higher Education: Tips, Tricks, and Tools by Prof. Alexandra Blank (Leiden University, The Netherlands); Computational Biology: Predicting Structure and Function of Proteins by Prof. Mahesan Niranjan (University of Southampton, UK) and Dr. Rupika Wijesinghe (University of Colombo School of Computing, Sri Lanka); and Future of Data Scientists and Statisticians with the Development of AI, organized in collaboration with the International Statistical Institute (ISI), featuring Prof. Nalini Ravishanker (University of Connecticut, President-Elect, ISI 2025–2027), Prof. David Banks (Duke University, USA), and Prof. Elisabetta Carfagna (University of Bologna, Italy). A special session by Janashakthi Insurance on Personal Branding was also held, helping participants strengthen their professional identity in a data-driven job market.



As part of the conference program, participants took part in a cultural excursion to the Temple of the Sacred Tooth Relic, providing an opportunity to experience Sri Lanka's rich cultural and religious heritage and to foster informal interaction among delegates. In addition, the conference dinner was held at The Grand Kandyan Hotel, offering a relaxed setting for networking and strengthening professional connections, while further enriching the overall conference experience through cultural appreciation and social engagement.

The proceedings from DS&AI 2025 is published in Springer's Communications in Computer and Information Science (CCIS, volume 2726) series, further reinforcing the conference's reputation as a credible platform for high-quality research dissemination. As researchers, educators, and professionals gathered in Peradeniya to collaborate and innovate, the event inspired meaningful discussions, forged new partnerships, and paved the way for impactful research addressing both global and regional challenges. For more information, visit the official conference website: https://icdsai.pdn.ac.lk/.

Overall, DS&AI 2025 was a highly successful event, marked by strong international participation, high-quality scholarly discourse, and meaningful academic and professional engagement. The conference significantly enhanced the University of Peradeniya's standing as a leading hub for research and innovation in data science and artificial intelligence, strengthening its global academic networks and reaffirming its commitment to advancing cutting-edge, interdisciplinary research with regional and international impact.



News & Events Spotlight:
Statistics/Data Science Departments and Student Societies

Highlights from Department of Statistics (DST) and Statistics Society of the University of Sri Jayewardenepura

The Higher Studies Guest Lecture on Actuarial Science, hosted by the Statistics Society of the Department of Statistics, University of Sri Jayewardenepura (USJ), was held successfully, leaving participants both informed and inspired. The event served as an excellent platform for undergraduates to gain deeper insights into one of the most dynamic and rapidly evolving professional fields connected to statistics and data-driven decision-making.

The lecture attracted a diverse audience comprising undergraduate students, academic staff, and those keen on exploring career pathways beyond conventional statistical roles. Actuarial Science, being a discipline that blends mathematics, statistics, finance, and risk management, was presented in a manner that was both accessible and intellectually stimulating. The session emphasized the growing global demand for actuarial professionals and highlighted the relevance of actuarial expertise in industries such as insurance, pensions, investment, healthcare, and enterprise risk management.

We extend our heartfelt appreciation to Ms. Saroja Gunatilleke, FIA, a highly respected and accomplished expert in the actuarial field, for delivering an insightful and engaging lecture. Drawing from her extensive professional experience,

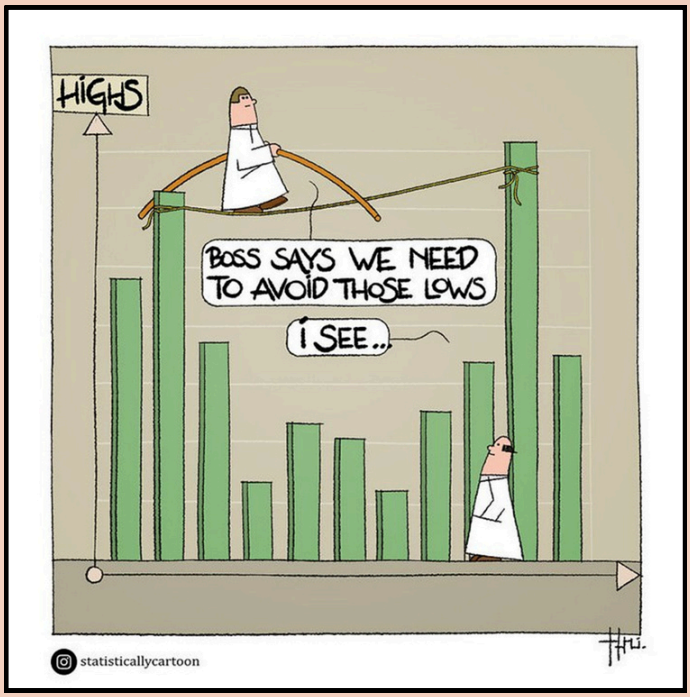
Ms. Gunatilleke provided a comprehensive overview of actuarial science, professional qualifications, and career opportunities, while also shedding light on the practical challenges and rewards of the profession. Her presentation not only enhanced participants' understanding of the subject but also sparked genuine interest among students considering higher studies or professional qualifications in actuarial science. The interactive nature of the session, including the question-and-answer segment, further enriched the learning experience.

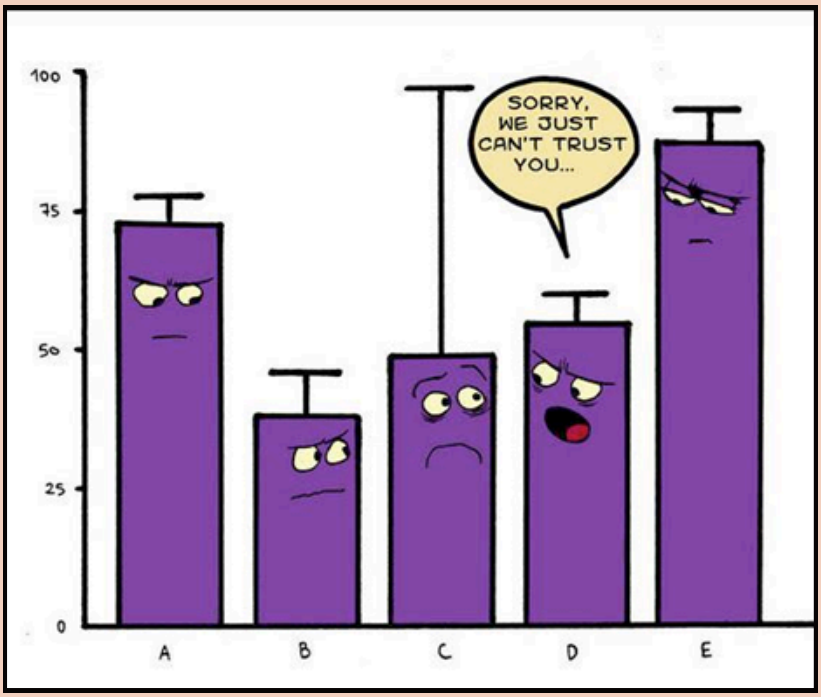
The organizing committee also wishes to express sincere gratitude to Dr. Chathuri Lakshika Jayasinghe for her invaluable support and guidance in organizing and facilitating this important academic event. Her commitment and encouragement played a key role in ensuring the smooth execution and overall success of the lecture. The collaborative efforts of academic staff and the Statistics Society members were instrumental in creating a well-structured and impactful program.

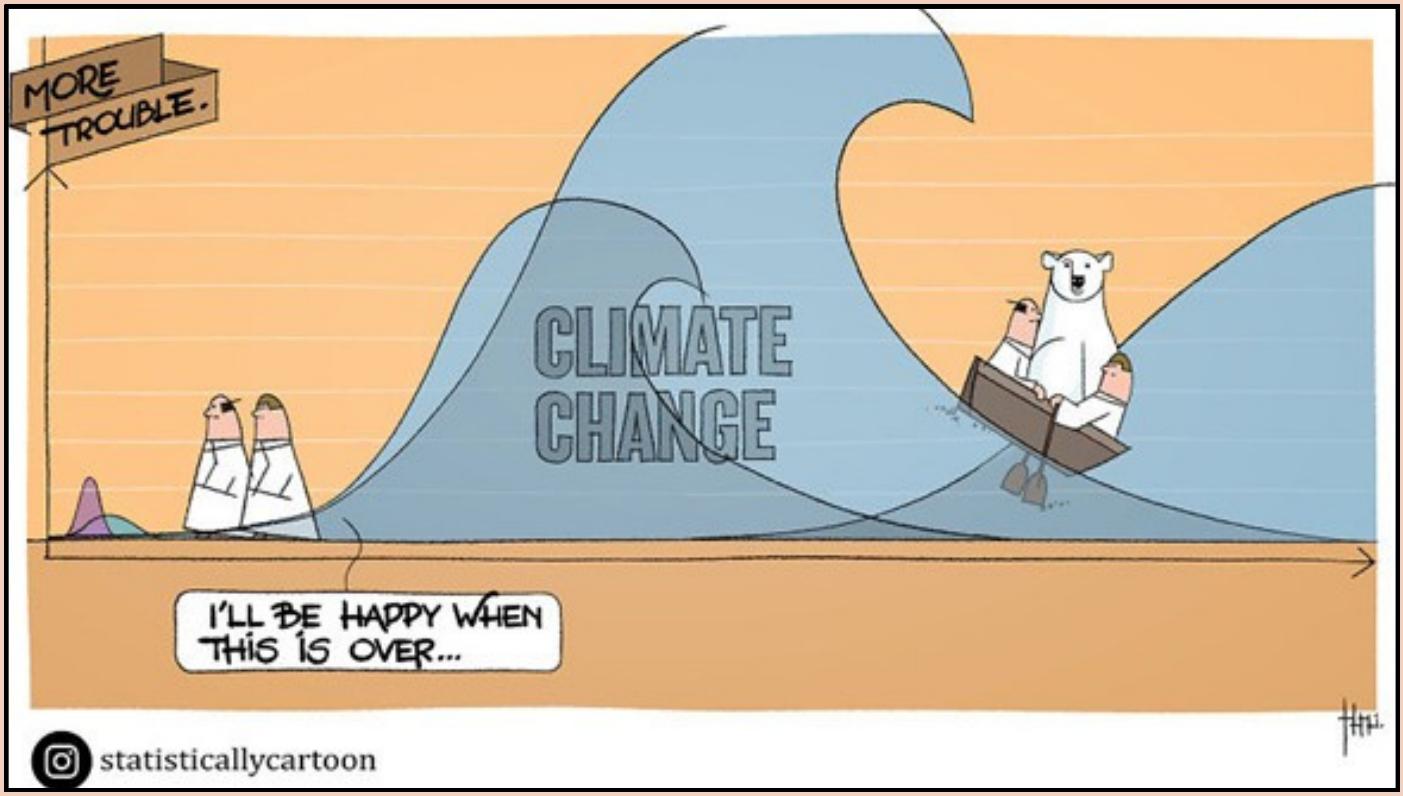
Events of this nature play a vital role in bridging the gap between academic knowledge and professional practice. By exposing students to real-world perspectives and expert insights, the Department of Statistics continues to foster a culture of academic curiosity, professional awareness, and lifelong learning. The Higher Studies Guest Lecture on Actuarial Science stands as a testament to the department's ongoing commitment to broadening students' horizons and supporting informed decision-making regarding future academic and career pathways.

As we look ahead, the Department of Statistics and its student bodies remain dedicated to organizing similar initiatives that promote academic growth, professional exploration, and meaningful engagement with industry experts. Here's to continued learning, inspiration, and excellence in the journey of higher education.

STAT COMICS

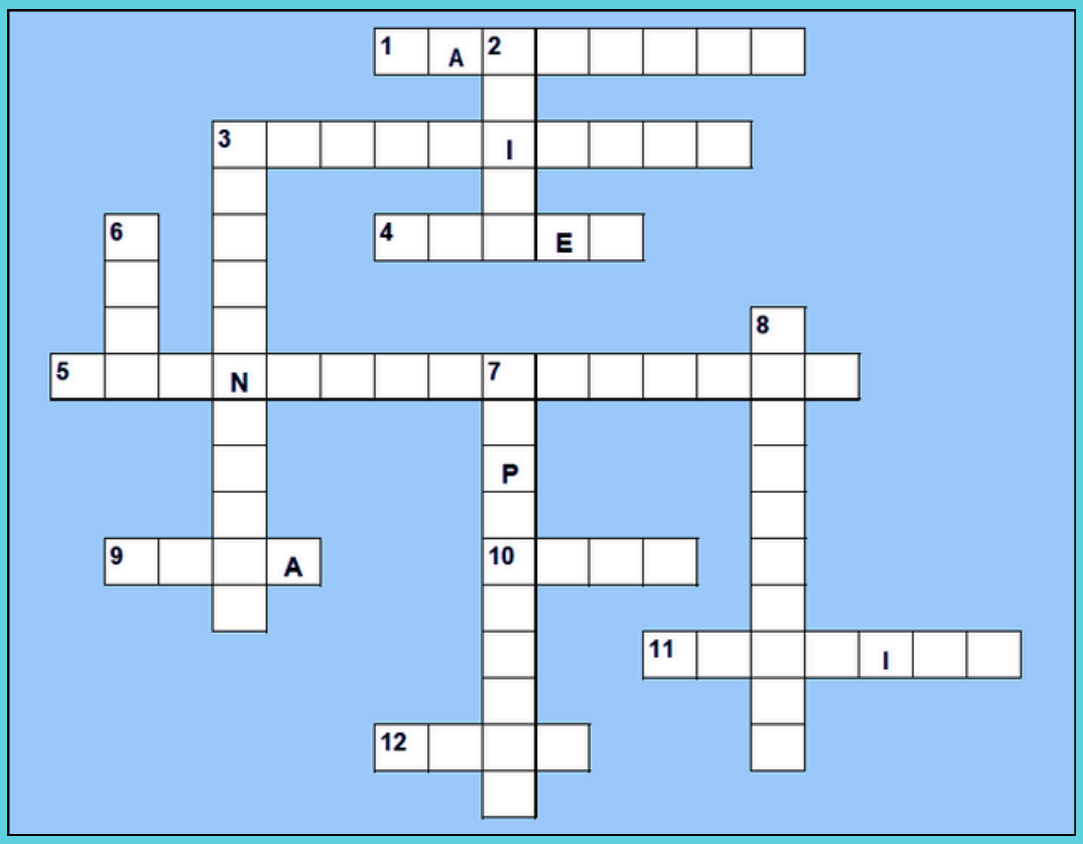






Source: https://www.boredpanda.com/statistically-insignificant-comics-raf-schoenmaekers/
Accessed date: 29th April 2025

Puzzle Competition



Across

1 What term describes the bell-shaped curve that represents a normal distribution?
3 A method of sampling where the population is divided into subgroups, and samples are drawn from each group
4 Which statistician developed Bayesian statistics for updating probabilities with new evidence?
5 Process of transforming data to have zero mean and unit variance
9 Raw information used in statistics 10 What is the name of the diagram used to visualize all possible outcomes of an event?
11 To guess what might happen next
12 A sample that is too small or biased to reflect the population

Down

2 The sum of probabilities of all possible outcomes in an experiment
3 Repeating patterns in data observed over regular intervals
6 To put things in order or groups
7 Process of filling missing values in a dataset 8 The probability of an event not occurring

WINNERS FROM ISSUE 3, 2025
FIRST PLACE: KAWYA BANDARANAYAKE
SECOND PLACE: ASHIKA RIDIMAHALIYADDA
THIRD PLACE: BINALI SENAYA

Please email your submission to appstatsl@gmail.com on or before 10th April 2026. The draw will be held on the 25th April, 2026. Please mention your contact number in the email.

Correct submissions will be shortlisted and the winners will be selected randomly and will be announced in the Issue 1 of 2026 IASSL newsletter.

SPONSER FOR THE PUZZLE COMPETITION

Courses conducted by IASSL during SEP - DEC 2025

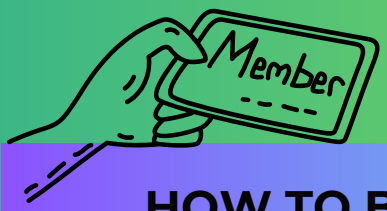
- Certificate Course on Machine Learning with Python
- Certificate Course on Basic Statistics for Managers and Researchers
- Certificate Course on Qualitative Data Analysis using NVIVO Software
- Certificate Course on Modelling in R
- Certificate Course on Tableau for Data Analytics
- Certificate Course on Systematic Literature Review (SLR) with Bibliometric Analysis: a way of manuscript writing with PRISMA - 13th , 14th ,15th Batch
- Certificate Course on Data Analysis using Power BI
- Certificate Course on Data Analytics with Python
- Certificate Course on Structural Equation Modeling (SEM) with AMOS & SmartPLS

Upcoming Courses (JAN-APRIL 2026)

- Certificate Course on Qualitative Data Analysis using NVIVO Software
- Certificate Course on R Essential Training in Data Analysis
- Certificate Course on Data Analysis using Power BI
- Certificate Course on Meta-Analysis **NEW**
- Certificate Course on Machine Learning with Python

New Life Members of IASSL

- **Mr. C.A. Wickramanayaka**
- **Mr. D.J.N.A. Damayantha**
- **Ms. K.A.S. Niranjala**
- **Mr. D.C.H.R. Wimalarathna**
- **Mr. M.A.D.C.K. Wijetunge**
- **Mr. P.T. Priyadarshana**
- **Ms. K.M.J.I.B. Senaratna**
- **Ms. H.Nawagamuwa**
- **Ms. K.A.H.C. Wijesekara**
- **Ms. H.U.N Gunarathna**
- **Mrs. N.A.M.R.Senaviratna**
- **Ms. M.G.S. Dewmini**
- **Ms. U. P. Kasthuriarachchi**
- **Ms. P.D.S.W. Gunasekara**



HOW TO BECOME A MEMBER OF IASSL?
Please Visit: www.iassl.lk

Apply for the Membership
Membership Form

Sri Lankan Journal of Applied Statistics (SLJAS)

CALL FOR PAPERS

VOLUME 27

ABOUT SLJAS

SLJAS is an open-access, international, double-blind peer-reviewed journal published by the Institute of Applied Statistics, Sri Lanka (IASSL).

SLJAS ACCEPTS

- Original Research Articles
- Critical reviews including conceptual discussions, Opinions and book reviews.

Authors are warmly invited to submit their papers for publication in SLJAS

THE SCOPE OF THE JOURNAL INCLUDES THE FOLLOWING DOMAINS:

APPLICATIONS OF STATISTICS	THEORETICAL AND METHODICAL ASPECTS OF STATISTICS	DATA SCIENCE AND ANALYTICS

AUTHOR BENEFITS:

- No Article Processing Charges (No APC)
- Fast Track Publication
- Provides Individual DOI (Digital Object Identifier) to each Published Article
- Indexed in Google Scholar

Submit your manuscript via JMS (Journal Management System).

WEB ADDRESS
www.iassl.lk

EMAIL
editor@iassl.lk

PHONE
011 2 588 291

Institute of Applied Statistics Sri Lanka
The Professional Center, 275/75,
Prof. Stanley Wijesundera Mawatha, Colombo 07, Sri Lanka.

JOIN OUR MEMBERSHIP

ARE YOU QUALIFIED WITH:

- ✅ A POSTGRADUATE DEGREE IN STATISTICS / APPLIED STATISTICS / BIO-STATISTICS/DATA SCIENCE/ DATA ANALYTICS/ BUSINESS ANALYTICS
- ✅ A BACHELOR'S DEGREE WITH STATISTICAL COURSEWORK
- ✅ MINIMUM 30 CREDITS IN THE FIELD OF STATISTICS

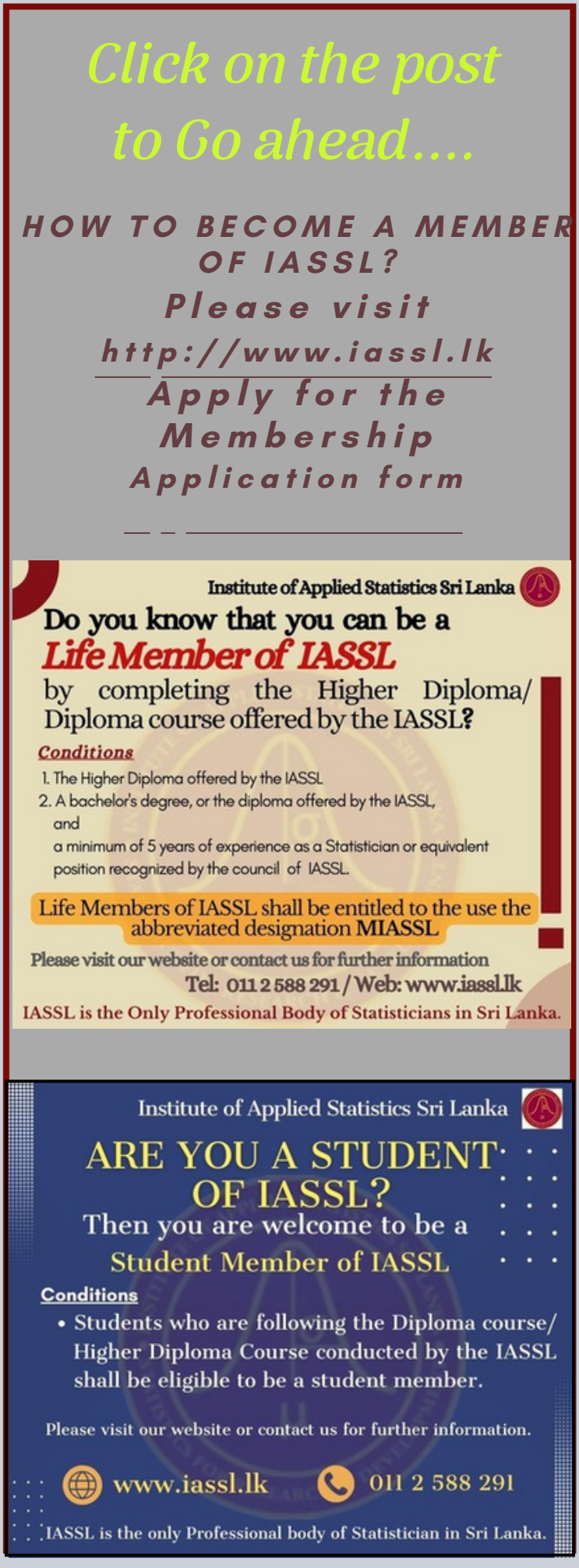
SCAN HERE

YOU MAY ELIGIBLE TO APPLY FOR IASSL MEMBERSHIP AND PROUDLY USE THE DESIGNATION:

MIASSL (MEMBER OF IASSL)

www.iassl.lk +94 777 324 802 info@iassl.lk

CLICK HERE



We are updating Contact Information of IASSL Members :

Please refer below link to update your details:
https://forms.gle/itfDcB5Buedbwp9F7

CONTRIBUTIONS TO THE JAN-APRIL (ISSUE 1) 2026 NEWSLETTER:

If you have any submissions, comments, suggestions & or feedback, please send them to editor@iassl.lk.

WE SINCERELY APPRECIATE ALL WHO CONTRIBUTED TO THIS ISSUE, AND THOSE WHO PARTICIPATED IN THE PREPARATION OF IT.

EDITORIAL BOARD/IASSL

IASSL NEWSLETTER

Official Newsletter of the Institute of Applied Statistics, Sri Lanka

Institute of Applied Statistics, Sri Lanka
The Professional Center, 275/75,
Prof. Stanley Wijesundara Mawatha,
Colombo 07 ,Sri Lanka

+94 11 2588291
info@iassl.lk
http://www.iassl.lk
http://www.facebook.com/iassl2020/
https://www.linkedin.com/company/iassl/