

## Seminar Announcement: Regression Analysis with R

We are glad to invite you to enroll in our "**Regression Analysis with R: An Intuitive and Hands-On Seminar.**" Join us for an engaging and practical two-hour seminar introducing regression analysis's fundamental concepts and applications, using R as the primary tool.

### Seminar Highlights

This seminar will cover the following topics:

1. **Overview of Regression Analysis**
  - Purpose and applications.
  - Key concepts: dependent and independent variables.
  - Understanding causality in regression.
2. **Setting Up the Analytical Framework**
  - The regression equation: slope, intercept, and error terms.
  - Types of regression: simple and multiple linear regression.
3. **Simple Linear Regression**
  - Fitting a line through data points to explain and predict outcomes.
  - Interpreting regression coefficients.
  - Visualizing results using scatterplots and residual analysis.
  - Practical examples with real-world datasets.
4. **Multiple Linear Regression**
  - Incorporating multiple predictors and evaluating their impact.
  - Assessing model fit: R-squared and adjusted R-squared.
  - Understanding multicollinearity and model assumptions.
5. **Predicting Outcomes and Decision-Making**
  - Using regression models for predictions in various fields.
  - Communicating results through tables, charts, and interpretation.
  - Discussing the limitations and alternatives to regression models.
6. **Wrap-Up and Q&A**
  - Recap of key concepts: regression basics, interpreting coefficients, and evaluating models.
  - Open discussion for clarifying doubts and sharing insights.

### Seminar Details

- a) **Enrollment:**

Please complete the [ENROLLMENT FORM](#) and click the "Send" button.
- b) **Seminar Materials:**

Materials, including slides (PDF) and R code, will be shared on Google Classroom. Access details will be provided after enrollment.
- c) **Seminar Format:**

**A two-hour online English seminar will be held on a date and time arranged in coordination with the enrolled participants.**
- d) **Fill out the form to enroll and invite friends. Please** note that some English proficiency, statistics knowledge, and basic R skills are required.
- e) **Cost:**

This seminar is **free of charge** and open to everyone interested.

Ricardo Lima, Ph.D.