

# <u>Training in Statistical Analysis</u> <u>and Data Preparation with R</u>

### 1. Data Preparation

- Identifying Missing Data in R
- Simple Imputation in R
- Multiple Imputation in R
- Random Forest Imputation in R
- Imputation Using Mean LOD
- Handling Censored Data
- Assessing Imputation Quality in R
- Sensitivity Analysis in R

## 2. Quality Index Analysis

- Analysis of Variance (ANOVA) in R
- Tukey HSD Test
- Kruskal-Wallis Test in R

# 3. Factor Analysis and Multivariate Regression in R

- Principal Component Analysis (PCA) in R
- Multivariate and Binary Regression Models in R

# 4. Trend Tests and Time-Based Analysis

- Performing the Mann-Kendall Trend Test in R
- Time Series Analysis and Lomb—Scargle Periodogram in R

#### 5. Time Series Modeling

• Time Series Models (ARIMA, SARIMA) in R

#### **Related Training**

R Programming, RStudio, and Tidyverse Course