Editorial

Welcome to the second issue of ***Progress in Signals and Telecommunication Engineering.*** We are delighted to share the latest research from our contributors, highlighted in the three papers below.

In the first article, **"*Sales Demand Forecasting for Workforce Capacity Planning: Trend–Seasonality Decomposition, Holt-Winters Projections, and What-If Staffing Scenarios*,"** the author introduces an integrated analytical pipeline connecting classical time-series decomposition and Holt-Winters forecasting to workforce capacity planning. The study decomposes historical demand into trend, seasonal, and residual components, revealing a 51.4% growth trajectory and strong annual seasonality peaking in autumn. Ultimately, the paper proves that combining transparent forecasting with scenario-based capacity estimation yields a highly practical and reproducible framework.

Shifting focus to sustainability, the second paper, **"*Drivers of Carbon Emissions in Green AI Hyperscale Data Centers: A Statistical and Multivariate Analysis,*"** investigates the primary drivers of carbon emissions in AI-oriented hyperscale data centers. Leveraging a synthetic telemetry dataset of over 71,000 observations, the authors utilize ANOVA, bivariate correlations, and multivariate OLS regression to evaluate variables such as region, energy source, cooling strategy, and workload intensity. The findings indicate that geographic region and primary energy source are the dominant factors, collectively explaining nearly 90% of the adjusted variance.

The final paper, **"*Accelerating Reliance on Internationally Trained Nurses amid Stable Physician Dependence: Evidence from OECD Health Workforce Migration Data, 2021–2025*,"** addresses global health workforce dynamics. By analyzing 269 observations across 36 OECD and partner economies, the authors track the percentage of foreign-trained medical professionals between 2021 and 2025. The research concludes that the rapid intensification of nurse migration creates an urgent need for domestic retention strategies and ethical co-investment frameworks to prevent workforce depletion in source countries.

We trust you will find this issue both informative and inspiring. We look forward to sharing more impactful research with you in the future.

Editors