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## Statistical Engineering: An Experience from Brazil

*Tuesday, 12 September 2023 15:45 (30 minutes)*

In this talk we share our experience introducing Statistical Engineering as a new discipline in Brazil. We provide an overview of the actions taken and the challenges we face. Our efforts have been mentored by Professor Geoff Vining, an enthusiastic leader in promoting the emerging subject of Statistical Engineering. The initiative is led by the Federal University of Rio Grande do Norte (UFRN), located in northeast Brazil. Our approach targets two sectors: academia and business.

A Statistical Engineering course was taught for the first time at UFRN to engineering and statistics graduate students. Initially, the students received training in the basic principles of Statistical Engineering and discussed case studies. After a preparatory stage, the group visited local companies to understand their needs. Our main challenge in the academic setting is to engage more students since Statistical Engineering is a non-required subject and demands extra time in a busy student schedule.

In Brazil, 99% of all businesses are performed by small and micro enterprises (SMEs). Our strategy to reach these companies considers their structure and thinking. Like most small businesses in the country, the companies in the region lack a mindset of connecting with academia. Therefore, academia needs to take an active role disseminating the potential of Statistical Engineering. We are currently engaged in establishing partnerships and starting to work on problems identified by the companies. In this sense, the major challenge is to show the benefits of Statistical Engineering to attract companies and then create lasting working collaborations.

### Keywords

collaboration; complex problem; data analysis

### Classification

Mainly application

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