# Professor Bela Stantic

Director Big Data and Smart Analytics lab - IIIS, Griffith University, Gold Coast, Australia

## Title: How Fine-Tuned Large Language Models and GenerativeAI can Enhance your Teaching and Research

## Abstract:

In this talk, Professor Bela Stantic will first elaborate on diverse funded projects at the Big Data and Smart Analytics lab, Griffith University. Many of these projects rely on pre-trained-transformers, large language models, and Generative AI. Therefore, a brief introduction on what they are and how they work will be provided. Specific attention will be given to clarifying what GenerativeAI can offer beyond the chat features, such as Chat-GPT, and what that means from the know-how and computing power point of view. The presentation will include demonstrations of several pre-trained and fine-tuned large language models and GenerativeAI running locally on the Griffith Big Data cluster. Prof Stantic will introduce the architecture and demonstarte **DORIS** (Digital Oracle for Reseach in Sciences), a GenerativeAI system which he developed and purposely trained by trusted data sources to do diverse tasks including reviewing scientific papers. The talk will conclude by highlighting several benefits and risks of GenerativeAI for education and Research.

## Short Bio:

Bela Stantic is a Professor of Computer and Data Science at the School of Information and Communication Technology. He is also the founder and Director of the "Big Data and Smart Analytics" Lab within the Institute of Integrated and Intelligent Systems, Griffith University.

Professor Stantic is invited to give many keynotes and invited talks at highly-ranked International conferences and prestigious institutions. He successfully applied his research interdisciplinary to the Tourism, Environment as well as Health domains. He has published more than 180 journal and conference peer-reviewed publications and being involved in supervision of mor tha 25 PhD students.

Professor Stantic was dubbed the 'Nostradamus of the 21st century' for his bold and correct predictions of almost everything by relying on advanced AI methods and publicly available Big Data. He built one of the most credible track records in predicting election outcomes, a few to list: USA elections, Brexit, Australian Federal and State elections, UK elections, and so on. In addition, Professor Stantic and his Big Data lab were named "Public Health Champions" by the Australian Queensland State Government for help and predictions they provided during the Pandemic.

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