**IME 503 (Fall 22) - Project #1: Ethics in Statistical Analysis**

The field of data analysis has faced challenges of dealing with unethical or biased interpretations and conclusions as applied to various sectors of economy, science, business, technology and socio-economic classes of the society. This is a global problem and has become exacerbated in the recent past few years with the applications of Big Data Analytics and Data Science. Unethical or unjust usage of data may negatively influence various business decision analyses and it may also result in human rights violation, racism, invasion of privacy, socio-political and economics distorted decision policies. Furthermore, statistical methods and artificial intelligence algorithms, coupled with the advancements in information technology, have in certain cases been misused or abused to create misinformation and disinformation for the public.

As students in a graduate statistical analysis class, you need to be aware of the potentials of unethical use and analysis of data. Hence, the purpose of this project is for teams of students to conduct a literature review to educate themselves on the above topic and to share their findings through a technical research paper.

Your assignment is to conduct a systematic search for up-to-date literature on the above issue to write a short paper (5-7 pages, excluding the references, and appendix material, if any).

Your story should include at least the following contents.

* Problem statement
* Introduction
* Discussion and examples of unethical usage of data analysis
* Technologies that may inadvertently, or by intention, promote the unethical, or unjust, conclusions that may have a negative influence on matters related to economy, business, engineering, science and society.
* Discussion of possible ways, precautions and laws/legislations, both national and global, that may indeed counteract against the unethical use of data and related analysis.

You are required to include at least 10 articles from known journals and other credible references for your paper.