INSTITUTE OF MATHEMATICAL SCIENCES
UNIVERSITI MALAYA

SIRI SEMINAR KUMPULAN PENYELIDIKAN

Title: **Unmasking Power of Statistics in Research, Development & Public Decisions.**
Speaker: **Prof. Dr. Shahjahan Khan**
Date: **6 March 2024 (Wednesday)**
Time: **2:30 pm - 3:30 pm**
Venue: **MM3, Level 2, Institute of Mathematical Sciences, Faculty of Science, UM & MS Teams (https://tinyurl.com/yycz5xnn)**

ABSTRACT

This paper uncovers the impact and power of statistics on the decision-makers and researchers relying on the evidenced-based approach, using results extracted by analysing exponentially growing data. Statistical methods have become an integral part of analysing simple or complex data and interpreting the results to make valid and accurate decisions in the face of uncertainty. Statistics has found new momentum of diverse applications due to the emergence of widely available computing facilities, and data science and analytics. Because of its power to reveal, otherwise unavailable, valuable information latent in the mess of data, statistics is increasingly being applied for both private and public decision-making, not to mention its crucial role in research and innovative technologies. The key role of statistics is engraved in the planning and development of every successful nation and international agency. In fact, the impact of statistics is not confined within any borders as it disseminates through regional and international organisations and agencies driving social, economic, health, poverty elimination, education, environment, and other agendas for planned and sustainable development. Obviously statistical methods are capable of analysing data to determine various estimates, indices, indicators, predictions, and perform tests to help identify any problems and take appropriate measures to remedy them. Because of the obvious power of statistics, it has been widely used, misused and abused by many of those who are in authority and power, often creating controversies.

Keywords: evidence-based decision, decision from data, data synthesis, public statistics, abuse of statistics, p-value.

All are Welcome