You are invited to a joint seminar hosted by ICCSSA and Statistics South Africa.

The United Nations Statistical Commission, declared the 20th October as World Statistics Day. World Statistics Day was first celebrated on 20 October 2010 and is celebrated every five years thereafter. ICCSSA hosts a breakfast seminar series each year in October to celebrate and showcase Statistics. On Friday 18 October ICCSSA will host, together with Stats SA, a Geostatistics seminar morning. The aim is to bring together expertise in spatial statistics, GIS and mining geostatistics for a morning of shared knowledge and discussion of future paths and collaborations. Speakers from Esri (ArcGIS software), SAS and GASA (Geostatistical Association of South Africa) will present on various aspects in this direction. We welcome all ICCSSA and SASA members to attend.

DATE:
Friday 18 October 2019

COST:
Free (need to register)

VENUE:
Statistics South Africa
Isibalo House Auditorium
2 Koch street
Salvokop

ACCESS CONTROLLED AREA
ID REQUIRED FOR ENTRY

RSVP:
Click here to RSVP now
(by 11 October 2019)

PROGRAMME:

08:00 - 09:00	Arrival, registration, breakfast
09:00 - 09:30	Welcome
09:30 - 10:15	AJ Coetzee (SAS)
10:15 - 11:00	Stuart Martin (Esri)
11:00 - 11:30	Tea
11:30 - 11:40	Jeremy Witley - Introduction to GASA
11:40 - 12:25	Chris Prins (GASA)
12:25 - 12:30	Vote of thanks

GUEST SPEAKERS:
Speaker 1: Antoine (AJ) Coetzee (SAS)
Title: Towards Spatial Data Science.

The world is moving towards spatial data science, University of Chicago's center of spatial data science is developing state of the art methods for geospatial analysis. Several universities are now offering a Master's degree in Spatial Data Science: University of Southern California, Yonsei University, UCL's center for advanced spatial analysis, and University of Liverpool.

Spatial data science or geographic data science is the intersection of statistics with computer science and geography. Spatial statistics techniques are not traditional statistics applied to spatial data, they are mathematically derived techniques to account for spatial autocorrelation in data. If the residuals in an OLS regression are auto correlated then the predictions might not be very reliable, in this case, geographically weighted regression can produce more reliable estimates.

This talk will highlight some of the recent developments by software companies to accommodate the increased interest in spatial data science and will focus on amongst others, Kriging, semi variograms, space-time cubes, random forest algorithm and deep learning as they are applied to spatial big data.

As a 22 year veteran of SAS; AJ is an expert in applying the analytics life cycle methodologies and processes to customer challenges to ensure monetisation of all aspects of the decision cycle for customers. He is skilled in IT Strategy, Digital Transformation Planning, People Management, Pre-sales, and Business Intelligence. For the past 2 years, AJ has been heading up the Africa Technology Practice driving analytical and digital platform modernisation in the SAS customer base with his team of specialists.

Speaker 2: Stuart Martin (Esri)
Title: Data into Insights

Traditionally Statistics and GIS have been separate disciplines, where highly specialised teams have developed data in isolation, to achieve project specific requirements. Recent National Census initiatives have required the implementation of innovative solutions to assist in the capture, analysis and reporting of demographic and population data in support of national imperatives.

GIS Teams and Statisticians are now taking advantage of the developments in data science and the ability to analyse diverse spatial data types to derive insights into the ever changing nature of our country. These insights are assisting both the private and public sectors in service delivery and resource planning.

This includes the use of 'Big Data" and transactional databases to understand consumer spending patterns, daily migration patterns, up-to-date population figures, etc. in support of decision making and policy formulation.

The presentation will highlight the trends in technologies and the data sources which can be used to develop insights into the ever changing nature of South Africa and its population.

Stuart Martin has been actively involved in the Geo-Information Science Industry for over 25 years, implementing geospatial solutions across a diverse range of applications and levels within organisations. Stuart originally studied in the fields of natural resource management where he has been able to see the use of Geo-Information Sciences helping to understand complex processes and making a real difference to decision making.

Currently, Stuart is working at Esri South Africa, where he is tasked with the development of data and imagery solutions as part of the Esri product offering. In this position he gets involved in a variety of client's activities and application areas providing value to the clients in this rapidly evolving industry. Having a sound background in software, data and applications allows Stuart to help clients realise the value of their spatial data investment.

Speaker 3: Dr Chris Prins (GASA)
Title: A photo overview of diamond resource evaluation.

The talk will give a photo overview of various aspects of diamond resource evaluation and mention will be made to statistical methods used in the analyses. Practical application of statistics is not always easy due to the reliability of data and the photo overview will take you on a tour from discovery sampling to resource evaluation and with an insight into the data accumulation, the analysis (why and what to get from it), as well as the challenge in expressing a business requirement as a statistical problem.

Chris works for Anglo American, predominantly with diamond business units on aspects related to improving sample strategy, estimation methodology and resource estimation. This entails considering models to fit all diamond sizes, from micro- to macro stones, with the prediction of large stones especially challenging. All aspects considered as potential value add is addressed, from the exploration phase where sample theory is applied, through the whole MRM value chain to reconciliation, where diamond resources are factored to reserves, based on the liberation and recovery characteristics of different lithologies.