



Under the Auspices of the Prime Minister

**Mr. Mohamed Shia Al-Sudani**

The Iraqi Association for Statistical Sciences is holding  
the 4<sup>th</sup> International and 17<sup>th</sup> National Scientific Conference on  
Statistical Applications, ICSA 2023

in cooperation with Al-Rafidain University College, College of  
Administration and Economics / University of Basra, Iraqi  
Private Banks League and UNFPA-Iraq Office

**Under the Slogan**

**"Statistical Modeling ... Pillar for Analyzing  
Environmental Changes in Iraq"**

On Wednesday, March 15, 2023

Basra-Iraq

**Conference Schedule "15/03/2023"; 8.30 AM -17 PM - Basra**

<b>8:30 AM</b>	Registration
<b>9.25 AM</b>	Welcome to ICSA - Host
<b>9:30 AM</b>	The Holy Quran
<b>9:35 AM</b>	Iraqi National Anthem
<b>9:40 AM</b>	Welcome Speech - Dr. Mahdi Muhsen Al-Alak Chairman of The Iraqi Association for Statistical Sciences
<b>9:45 AM</b>	Representative of the Prime Minister's Speech His Excellency Mr. Asaad Al-Eidani - Governor of Basra
<b>9:55 AM</b>	Basra University Speech – Prof. Dr. Saad Shaheen Hammadi President of Basra University
<b>10:00 AM</b>	Al-Rafidain University College Speech - Prof. Dr. Mahmood Abu Al-Shaer Dean of Al-Rafidain University College

10:10 AM	United Nations Population Fund Speech- Dr. Nestor Owomuhangi Representative of UNFPA- Iraq office	
10:20 AM	Iraqi Private Banks League - Mr. Wadee Al-Handal President of Iraqi Private Banks League	
	<b>First Panel Discussion</b> <b>In The Face of the Environmental Changes</b>	
	<b>Session Chair:</b> <b>Dr. Jassim Abdul Aziz Al-Falahi,</b> Deputy Minister, Ministry of Environment	
10:30 AM	<b>Keynote Speaker:</b> <b>Dr. Hayder M.Abdul-Hameed</b> University of Baghdad 7 minutes speech, up to 3 minutes Q&A	The Effects of The Climate Changes on The Water and Agricultural Practices In Iraq
10:40 AM	<b>Keynote Speaker:</b> <b>Dr. Havan H.Salman</b> Ministry of Water Resources 7 minutes speech, up to 3 minutes Q&A	A Plane of An Integrated Management of Al-Dalamj Marsh.
10:50AM	<b>Keynote Speaker:</b> <b>Dr. Wasfi Taher Kahwachi</b> Tishk International University 7 minutes speech, up to 3 minutes Q&A	Air and Water Pollution and Statistical Methods
	<b>Second Panel Discussion</b> <b>Studying the impact of environmental changes on the situation of women and girls in Iraq</b>	
11:05 AM	A Documentary Film about The Marshes of Iraq	
	<b>Session Chair:</b> <b>Dr. Nestor Owomuhangi</b> Representative of UNFPA- Iraq office	<b>Session coordinator:</b> <b>Dr. Mahdi Muhsen Al-Alak</b> Chief Technical Advisor / UNFPA-Iraq
11:10 AM	<b>First Keynote Speaker</b>	Prof. Dr. Adnan Yaseen University of Baghdad
11:20 AM	<b>Second Keynote Speaker</b>	Prof. Dr. Wafaa Al-Mahdawi Mustanisiryah University
11:30 AM	Honoring and distributing Shields	
11:40 AM	<b>Tea / Coffee Break</b>	

**First Research Presentation****12:00 PM - 13:30 PM**

Themes Conference No. 1, 2, 8

Al Zubair Hall

Wednesday, 15-03-2023

<b>Sessions Chair:</b> <b>His Excellency Dr. Ibrahim Bahr Alolom</b> Former Minister of Oil Chairman of Bahr Alolom Forum	<b>Sessions Reporter:</b> <b>Prof. Dr. Munaf Yousif Hmood</b> University of Baghdad Vice Chairman of Iraqi Association for Statistical Sciences (IASS)
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Paper ID	Presenter	Title
ICSA2023-001	Dr. Sarmad A. Salih	Estimation of a Multivariate Non-Parametric Regression Function of a Non-Normal Distributions by Using Kernel Smoothing
ICSA2023-020	Firas M. Jassim	Forecasting of Water Quantities in the Iraqi Marshes Using MSARIMAX Model
ICSA2023-048	Asaad N. Hussein	Choosing Optimal Model that Effecting on the Salinity of Earth by lasso model selection in quantile regression model
ICSA2023-074	Hanaa S. Mohammed	Choose Best Formula for Lindley Distribution for Modeling of Rainfall Data in Iraq
ICSA2023-078	Dr. Maha A. Alrawi Director General of the Sustainable Development Department - Ministry of Planning	The Repercussions of Climate Changes on the Human Development Dimensions in the Iraqi Marshes: Development Challenges and Required Interventions
ICSA2023-083	Dr. Ahmed D. Ahmed	Using Statistical Methods to Show the Effect of Temperature and Relative Humidity on The Amount of Rain in Baghdad
ICSA2023-086	Dr. Hydar L. Ali	Water Quality Index for Abu Zark Marsh

**Second Research Presentation****12:00 PM - 13:30 PM**

Themes Conference No. 3, 4, 5

Al Farahidi Hall

Wednesday, 15-03-2023

<b>Sessions Chair:</b> <b>Prof. Dr. Mahmood Abu Al-Shaeer</b> Dean of Al-Rafidain University College	<b>Sessions Reporter:</b> <b>Ass. Prof. Dr. Emad Hazim Aboudi</b> University of Baghdad
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Paper ID	Presenter	Title
ICSA2023-003	Maysam S. Khair	Constructing A model to Study the Effect of Some Variables on Air Pollution in Baghdad Governorate for the Period (2017-2019)
ICSA2023-005	Saif H. Raheem	Determine the Most Important Factors Affecting Air Pollution using the Reciprocal Lasso Method

ICSA2023-011	Mrtadha M. Abdullah	Using Statistical Methods to Detect and Predict the Causes of Pollution of the Tigris River
ICSA2023-014	Dr. Haifa T. Abd	Studying Some Air Pollutants by using the Nonlinear Autoregressive Distributed Lags (NARDL) Model
ICSA2023-018	Laith Fadhil S.H	Statistical Analysis of a Control Regression Chart: An Applied Study
ICSA2023-021	Dr. Fatimah A. Jawad	Determine the Most Important Types of Gases that Cause Air Pollution using the MCD Genetic Algorithm
ICSA2023-023	Fahd H. Inad	Estimating the Multiple Regression Model using the Bootstrap Method to Study the Effect of Environmental Wastes on the Waters of the Euphrates River

### Third Research Presentation

**12:00 PM - 13:30 PM**

**Themes Conference No. 10**

**Ibn Al Haitham Hall**

**Wednesday, 15-03-2023**

<b>Sessions Chair:</b> <b>Dr. Dheyaa Awad Kadhim</b> Head of Central Statistics Organization (CSO)	<b>Sessions Reporter:</b> <b>Ass. Prof. Dr. Muthanna Subhi Sulaiman</b> University of Mosul
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Paper ID	Presenter	Title
ICSA2023-013	Dr. Zakariya Y. Algamal	Employing Nature-Inspired Algorithms in Selecting the Band Width in a Polynomial Estimator
ICSA2023-015	Dr. Mundher A. Khaleel	Some Properties and Applications of the Gompertz Topp-Leone Inverse Exponential Distribution
ICSA2023-016	Dr. Mundher A. Khaleel	[0,1] Truncated Exponentiated Exponential Inverse Weibull Distribution with Applications of Carbon Fiber and COVID-19 Data
ICSA2023-017	Dr. Aseel M. Eesa	Using a Simple linear Regression Function to Segmentation Image of the Hamrin Marshes for Years (2020-2021/ 2021-2022)
ICSA2023-024	Hanan A. Al-rashide	Forecasting Volatility of OPEC Oil Prices using EGARCH and ARMA-GARCH Models
ICSA2023-042	Dr. Osamah B. Shukur	Using K-Nearest Neighbor and Random Forest Approaches for Classifying Solar Radiation
ICSA2023-052	Dr. Balsam M. Shafeeq	The Bayesian Bridge of Quantile Structural Equation Model with Application
ICSA2023-053	Dr. Suhad A. Shaheed	A Statistical Study on the Relationship Between Epidemics and Climate Change in the World

**Fourth Research Presentation****12:00 PM - 13:30 PM****Discussion Session of Iraqi  
Private Banks League****Al Sayyab Hall****Wednesday, 15-03-2023****Sessions Chair:****Dr. Ahmed S. Al-Mutwali**  
Mustanisiryah University**Session Title:****Economic Reform Begins with Banking Reform****Dr. Qasim Rhaif Al-Fahad**General Manager of the Central Bank of Iraq,  
BasraThe Role of The Central Bank of Iraq in Organizing  
Foreign Trade Financing Procedures**Dr. Salahaldin M. Al-Imam**

Middle Technical University

A Brief Presentation of The Plan and The Importance of  
Building an APLI Program Policy**Mr. Sherwan Anwar Mustafa**

Advisor of Iraqi Private Banks League- Kurdistan

Statistical Analysis and Its Role in Banking Development

**13:30 PM****Lunch****Fifth Research Presentation****15:00 PM - 16:30 PM****Themes Conference No. 6 , 7 , 9****Al Zubair Hall****Wednesday, 15-03-2023****Sessions Chair:****Prof. Dr. Mehdi Wahab Naserallah**  
University of Kerbala**Sessions Reporter:****Prof. Dr. Wadhah S. Ibrahim**  
Mustanisiryah University

Paper ID	Presenter	Title
ICSA2023-004	Dr.Marwa K. Ibrahim	Studying the Effect of Changing one of the Climatic Phenomena on Human Life and Reducing its Risks with a Statistical Eye
ICSA2023-010	Miqdad J. Abd	Studying some of the Factors Influencing the Agricultural Sector to Achieve the Dimensions of Sustainable Development in Iraq for the Period 1990-2019
ICSA2023-033	Dr. Asmaa A. Yaqoob	Structural Equations Modeling in an Applied Study to Analyze the Impact of Environmental Health on the Human Health Index in Basrah Governorate
ICSA2023-051	Huda Z. Najj	A Modified MANOVA Model to Assess Water Quality
ICSA2023-060	Zainab M. Redha	The Use Penalized Quasi Likelihood (PQL) to Estimate Multilevel Binary Logistic Model to Identify the Factors of Anemia
ICSA2023-063	Dr.Omar A. Abd Al-Wahab	Using the Spatial Error Model to Study the Effect of Location on Rainfall in Iraq

ICSA2023-064	Nabaa N. Mahdi	Robust Modeling for Factors Affecting in Relative Humidity in Basra Governorate
ICSA2023-084	Dr. Saad K. Hamza	Using the Multiple Ordinal Logistic Regression Model to Determine the Most Important Demographic and Environmental Factors Affecting the Incidence of Cancer Among Children in Basra Governorate

### Sixth Research Presentation

**15:00 PM - 16:30 PM**

**Themes Conference No. 3 , 4 , 5**

**Al Farahidi Hall**

**Wednesday, 15-03-2023**

<b>Sessions Chair:</b> <b>Prof. Dr. Mohammed H. Al-Sharoot</b> University of Al-Qasdisiyah	<b>Sessions Reporter:</b> <b>Prof. Dr. Hassan S. Uraibi</b> University of Al-Qasdisiyah
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Paper ID	Presenter	Title
ICSA2023-025	Dr. Bashar K. Ali	Statistical Modeling of Temperatures in Iraq Under a Fuzzy Environment
ICSA2023-026	Dr. Ahmed A. Akkar	The Study of Spatial Effect on Some Variables of Water Pollution in Baghdad Regions
ICSA2023-028	Samah S. Hassan	Estimating the Risk Function using the Log-Logistic Regression Model for Environmental Pollution Data
ICSA2023-030	Dr. Ban G. Omer	Probability Modelling of Rainfall for Some Regions in Nineveh Governorate
ICSA2023-032	Dr. Hussein A. Algashamy	Building a System (Statistical - Electronic) to Study the Purity of Air in all Iraq Termination
ICSA2023-039	Dr. Lamyaa M. Ali	Solutions to the Problems of Iraqi Environment Using Statistical Methods
ICSA2023-044	Dr. Basheer j. Khaleel	Using Multivariate Gray Model to Predict CO <sub>2</sub> Emissions and People Using Safely Managed Sanitation Services
ICSA2023-047	Rafal A. Othman	Geographical Statistical Analysis of the Relationship Between Global Climate Changes and Some Human Diseases in Iraq

**Seventh Research Presentation****15:00 PM - 16:30 PM****Themes Conference No. 3 , 4 , 5****Ibn Al Haitham Hall****Wednesday, 15-03-2023****Sessions Chair:****Prof. Dr. Entsar Arebe Fadam**  
University of Baghdad**Sessions Reporter:****Ass. Prof. Dr. Waleed Meiya**  
University of Basra

Paper ID	Presenter	Title
ICSA2023-050	Dr. Waleed A. Araheemah	The Effect of Pollution Rates on the Biological Oxygen Demand Model in Water Streams
ICSA2023-055	Dr. Saja M. Hussein	Statistical Study on the Chemical Resources of the Tigris River Water in Baghdad Governorate
ICSA2023-065	Dr. Ons E. Musa	Using Neural Networks (Back Propagation Network) to Determine the Variables Affecting Water Pollution in the Euphrates River
ICSA2023-066	Dr. Ahmed M. Salih	Using Nonparametric Procedure to Develop an OCMT Estimator for Big Data Linear Regression Model with Application Chemical Pollution in the Tigris River
ICSA2023-072	Dr. Munaf Y. Hmood	Using the Weighted Average of Rounded Points to Estimate CO <sub>2</sub> Emissions
ICSA2023-081	Rawya E. Kareem	Estimate the Factors Affecting Air Pollution in Iraq using Fuzzy Regression Models
ICSA2023-082	Nada H. Wadi	Estimating the Amount of Defective Vaccines and their Impact on the Environment using a System of Simultaneous Equation
ICSA2023-085	Firas M. Jassim	Monitoring and Analyzing the Associated Gas Flaring Process using Multivariate Control Charts

**Seventh Research Presentation****15:00 PM - 16:30 PM****Themes Conference No. 10****Al Sayyab Hall****Wednesday, 15-03-2023****Sessions Chair:****Asst.Prof. Wasfi Tahir Kahwachi**  
Tishk International University**Sessions Reporter:****Prof. Dr. Ahlam Ahmed**  
University of Baghdad

Paper ID	Presenter	Title
ICSA2023-054	Dr.Hassan S. Uraibi	Fast and Robust Majority Voting Algorithm for Big Data Regression Model
ICSA2023-056	Amal M. Abed	Using the Circular Distance Principle to Detect Outliers in the Circular Regression Model
ICSA2023-068	Mohammed Alguraibawi	Regression Depth for Statistical Depth Function

ICSA2023-071	Dr. Huda H. Abbas	Parameter Estimation of the JS Robust Circular Regression Model for Corneal Convolution Data
ICSA2023-073	Dr. Raissan A. Zalaan	Building a new probability distribution (Gompertz - Lindely) to estimate the reliability function and the risk function
ICSA2023-079	Dr. Ali Al-Kenani	Robust Sparse Sufficient Dimension Reduction via Adaptive Lasso Penalty
ICSA2023-080	Dr. Ahmad N. Flaih	Prediction Penalized Analysis of Stroke Based on New Bayesian Hierarchical Priors Model
ICSA2023-087	Dr. Abida A. Al-Taie	Multiple non-Linear Regression and its Applications

<b>16:30 PM</b>	<b>Closing Session – Conclusions and Recommendations</b>
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