Safwat H. Shakir Hanna is the Director of Texas Gulf Coast Environmental Data Center (TEXGED Center- Prairie View A&M University, The Texas A&M University System, Texas, USA). In addition, he is a Professor of Fulbright, Senior Research Scientist and faculty member in the Chemical Engineering, Roy G. Perry College of Engineering Prairie View A&M University. Dr. Shakir in 1989 he earned his Ph.D. in Environmental Science from College of Environmental Science (ESF), State University of New York and Syracuse University, Syracuse, USA. Additionally he earned three master degrees in Industrial Business Management, Environmental Management and Protection and Environmental Science from different universities in Egypt and Germany plus intensive training in Remote Sensing in Italy.

As an educator, Dr. Shakir has extensive experience in teaching, and he taught several classes in Computer Science, Simulation Modeling, and Environmental Management, Environmental Remediation Technology, Remote Sensing, Environmental processing in USA and Germany. Dr. Shakir has an extensive experience in a wide variety of research, especially in environmental sciences, sustainable development, remote sensing and space science, water stress for crops, and biodiversity issues. He participated in several research projects in Egypt, Germany, and USA. He was a member of Systems Analysis of Mediterranean Desert Ecosystems of Northern Egypt (SAMDENE, 1974-1979) and Regional Environmental Management of the Mediterranean Desert Ecosystems of Northern Egypt (REMDENE, 1979-1983) projects in Egypt and funded by US/EPA and Ford Foundation. His responsibilities include designing, conducting the chemical analyses of soil samples, studying, and measuring the biological activities for different types of ecosystems and finally studying the biodiversity and abundance of soil biota. Additionally, Dr. Shakir has participated in evaluating the economic and environmental aspects, and designing resources, and land-use planning for industrial projects in Egypt through his work at the Ministry of Planning. Additional he participated in evaluation and assessing the impact of steel and fertilizer industry on the air and soil pollution. In addition, he participated in evaluating the economic and environmental aspects such and the effects and impacts of the Aswan High Dam, especially the costs of soil fertility, productivity, and erosion for the agricultural sector in Egypt. The work also included the evaluating: loss of agricultural lands, public health, rising water table, new habitat formation, fishers, pesticides and fertilizers' pollution. In USA, Dr. Shakir developed the Texas Gulf Coast Environmental Data Center to be a research center for remote sensing and studying the environmental problems in the Gulf of Mexico in the Southern region of the Gulf Coast of the United States of America. NASA has funded this project and recognized this center as one of the centers of excellence in Environmental Studies 1997. Since the establishing the center in 1995, the center provided technical expertise in the area of remote sensing and as the result of this effort the center produced several research papers and submitted several funded research projects. In this respect, Honorable, Senator of Texas in the United States Senate Commended Dr. Shakir for his efforts in improving research and teaching in the state of Texas. As a scientist and researcher in the field of

ecology, remote sensing, soil ecology, and bioremediation technology Dr. Shakir, developed several innovative techniques to evaluate the biological diversity, remediation technology using biological agents to clean oil spills. He developed the two measures "The Absolute Importance Value (AIV) "and "Relative Importance Value (RIV) "and developed a computer model for measuring diversity. Additionally, Dr. Shakir involved in a collaborative research project with Oak Ridge National Laboratory to study the trends in global climatic changes and soil nutrients cycling. He also, worked with Professor Richard Weaver in Texas A&M University and developed two research projects related to "Volatilization of Organic Compounds from soil" and "Nitrogen Limitation to Bioremediation of Oil in Coastal Salt Water Marches." As a recognized scientist, Dr. Shakir has been selected in several national and international committees. For example, he was selected as a member of "Ecology Sub-Panel, Science Panel" for Houston Foresight Committee from 1994-1998. The role of this sub-panel is to prepare an assessment of environmental risks and problems facing the region's ecosystems near the Gulf Coast of Mexico in the southern region of the United States of America. Additionally, he was selected as a member of Steering Committee for the US National Assessment of the Potential Consequences of Climate Variability and Change Climate Change and its Consequences on the Gulf Coast Region of the US. Additionally, Dr. Shakir has worked in remote sensing area and particularly in detecting the water, stress in crops using remotely sensed data using hyper-spectral images such as AVIRIS. In the remote-sensing area, he worked in image processing and analyzed images of NASA such as AVIRIS, AVHRR, Hyperion, ASTER, and others. Dr. Shakir has published more than 100 publications in well-known journals and conference proceedings and in 2004 published a book about "Sustainable Development in the 21st Century", In 2004-2005 received Fulbright grant in Collaboration with Ain Shams University to develop an educational program for protecting environmental and the protected areas in Egypt. Further, Dr. Shakir Hanna has been selected for Fulbright Program 2008 to develop courses about Simulation and Modeling and Biostatistics presented to faculty and graduate students of Ain Shams University, other universities in Egypt and the scientists and researchers of Egyptian National Research Center. In 2013, Dr. Shakir received the professorship of Fulbright to travel to Italy to supervise Ph.D. and graduate students in the University of Naples, University of Florence, University of Luiss in Rome, and university of Catania. Dr. Shakir in Italy developed courses of Sustainable Development and Environmental Issues. Dr. Shakir supervised Ph.D. students in Egypt from different universities and supervised Master degrees in Prairie View A&M University in Chemical Engineering. Additionally, Dr. Shakir is on the board of several scientific journals in USA and Italy. UNESCO and German Minister of the Environment in addition to many organizations invited Dr. Shakir to make presentations and to be keynote speaker about climate change, bioremediation technology, and sustainable development for many years. He also, invited by United Nation Secretary-General to review some of the Millennium Programs in the year 2000-2001.