



This issue of Earth Sciences Research Journal

We at the Earth Sciences Research Journal hope all our readers have a happy and productive 2018. Our last issue of ESRJ in 2017 presents a number of papers on different topics within the Earth Sciences.

In **Alvarez-Ysabel et al.** a 150+ year database of tropical cyclone activity is analyzed for the Dominican Republic (DR). A total of 112 events have tracks at most 300 km from the DR are studied in terms of their seasonal distribution and long-term distribution, their frequency and landfall probability. The authors also present a review of tropical cyclone activity in the region.

Ogly Gahramanov uses a combination of geological and geochemical information to model the formation of hydrocarbon deposits in the South Caspian Basin, in particular for the South Caspian Depression. The authors argue that large pressures and tectonic history have a large effect on the appropriate selection of potential drilling sites.

Using high-resolution aeromagnetic survey data in combination with other geological-geophysical thematic maps, Batista takes advantage of GIS tools for identifying different tectonic regimes in the Sabinas Basin, northeastern Mexico. Regions where the basin is deepest and the delineation of faults allows for the determination of block boundaries as well.

He et al. use a modified direct shear test apparatus to determine shear strength parameters of unsaturated soils under various conditions. The paper proposes that the direct shear test analysis is an efficient way to analysis soil samples.

Zhuo and Chen explore the improved water retention capacity of sandy soils by adding nanocarbon made from coconut shells. Different amounts and thicknesses of nanocarbon were added to the soil, increasing water content with increased nanocarbon.

Loess deposits can have very large thicknesses, and for engineering purposes it is important to better understand the geotechnical response of the loess deposits. **Wang et al.** investigate the collapsibility of loess deposits in the Xixian New Region using compressions tests under different pressure and water content conditions. Results presented may have important application in future geotechnical studies in the region.

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Editor-in-chief