

عنوان مقاله:

Observational-computational 3D Engineering Geological Model and Geotechnical Characteristics of Young Sediments of Golestan Province

محل انتشار:

مجله پیشرفت تحقیقات محاسباتی در علوم و مهندسی کاربردی، دوره 3، شماره 1 (سال: 1396)

تعداد صفحات اصل مقاله: 12

نویسندگان:

Rasool Yazarloo - *Department of Engineering Geology, Faculty of Science, Tarbiat Modares University, P.O. Box: 14115-175, Tehran, Iran*

Mashala Khomehchian - *Department of Engineering Geology, Faculty of Science, Tarbiat Modares University, P.O. Box: 14115-175, Tehran, Iran*

Mohamad Reza Nikoodel - *Department of Engineering Geology, Faculty of Science, Tarbiat Modares University, P.O. Box: 14115-175, Tehran, Iran*

خلاصه مقاله:

Recently, a number of subsurface investigations have increased as a result of infrastructure construction in Golestan province, north of Iran. Although there had been investigations on the geotechnical characteristics of the subsoils, understanding soil properties and 3D modelling of geological structures of the area subsoils have not yet been studied. This paper aims to conduct a 3D engineering geological modelling by means of boreholes data and computed geotechnical properties. Due to the lack of data and population concentration, geological model were drawn for Gorgan and Gonbad-e-Kavoos cities which are the biggest cities of the province. The result of these models showed that subsoil of both districts is mainly composed of low plasticity clay (CL) with interbed or lenses of coarse grain sandy and gravelly soils. From sedimentological standpoint, it could be inferred that depositional environment of Gorgan city is alluvial fan created by Ziarat River and Gonbad-e-Kavoos is located on flood plain of Gharasoo River. Since the Golestan province subsoil is mostly consist of clayey soil, the geotechnical properties of the Golestan clay such as physical properties and engineering properties have been studied in this paper. Finally, geotechnical hazards associated with these sediments including excavation problems, low bearing capacity, settlement problems and liquefaction potential were reported

کلمات کلیدی:

Golestan province, Engineering geological model, Geotechnical characteristics, Geotechnical hazard

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/764358>



