



## **The use of microgravity modelling for understanding of the tectonic activity in Izmir, Western Anatolian Region, Turkey**

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The Western Anatolian region (WAR), being within the Alpine-Himalayan orogenic belt, is a part of the extensional region which lies between Arabian, African and Eurasian plates. WAR aslo is one of the most tectonically active, rapidly deforming and extending areas in the world. A majority of the most hazardous of these tectonic zones are located within the study area. Many faults have been defined in İzmir have been mapped with respect to surface geological field studies. However, subsurface-based geophysical studies have not been conducted until now.

In this study, the microgravity data have been measured since 2009 in İzmir and its surrounding. Then the data processing techniques have been applied to the gravity data. After all the data have been modelled, the obtained findings and the surface geological information have been compared with each other. These new outcomes will be presented in this study.

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