

ELD79-LGD2006 Transformation Techniques Implementation and Accuracy Comparison in Tripoli Area, Libya

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Abstract : During the last decade, Libya established a new Geodetic Datum called Libyan Geodetic Datum 2006 (LGD 2006) by using GPS, whereas the ground traversing method was used to establish the last Libyan datum which was called the Europe Libyan Datum 79 (ELD79). The current research paper introduces ELD79 to LGD2006 coordinate transformation technique, the accurate comparison of transformation between multiple regression equations and the three-parameters model (Bursa-Wolf). The results had been obtained show that the overall accuracy of stepwise multi regression equations is better than that can be determined by using Bursa-Wolf transformation model.

Keywords : geodetic datum, horizontal control points, traditional similarity transformation model, unconventional transformation techniques

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