

DYNA6.1 Software Helps Design Foundations That Can Withstand Catastrophic Events

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DYNA6.1 is used worldwide for the design of foundations subjected to dynamic loads, such as those under large factory equipment or buildings susceptible to earthquakes.

“ *The highly versatile software program has been used to formulate foundation requirements for power plants, turbines, roads, and rotation of centrifugal or reciprocating machinery, where precision is needed most.* ”

It was developed by M. Hesham El Naggar, Professor and Director of the Geotechnical Research Centre at Western University in London, Ontario, Faculty of Engineering. WORLDiscoveries, the technology transfer office for Western University, helped El Naggar commercialize the copyrighted software by helping him through the formation process of his own company. WORLDiscoveries continues to manage the technology by issuing license agreements and takes care of all ongoing finance and administration for the software company.

Since being commercialized, the DYNA6 software has been used by more than 200 engineering organizations including Hyundai, Samsung, and Stantec.

DYNA6 an easy-to-use graphic interface that allows engineers to enter various data points to measure the strength of their foundations, and if it is suited for their project. Once the engineer has entered in their specifications, the program returns the response the foundations would have to various forms of dynamic load pressures and provides the engineer a data output in technical graphs and spreadsheets.

It can calculate the frequency dependent stiffness and damping constants of shallow and deep (pile) foundations and calculates the response of the machine foundation system to harmonic, transient and random loads. Dyna6 can also be used as a complementary tool to structural analysis and design software such as STAAD, RISA and SAP2000 which are industry standard.

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