

Engineering Geology for Tomorrow's Cities and Geotechnics

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The 21st Century is considered to be a century through which world's urban population will rapidly grow, new cities will be build and enlarged, and the old ones will be regenerated. Recently, in modern cities and metropols, the main problems are inner city transportation, underground structures such as metro, water tunnels, underground railways, and deep excavations. Planning of these structures and associated applications have prime importance in terms of both engineering and environment. Experiences, which have been gained in many projects conducted in various countries of the world, and in mega cities of Turkey and some big cities rapidly developing in Anatolia, indicated that the uncertainties related to subsurface and the associated risk significantly contributed to major budget overruns and to problems during and after construction. Such experiences suggest that there is an urgent need for a better and detailed assessment of the subsurface conditions and for engineering geological services as an important stage in modeling of rock and soil structures. Based on this important issue, a session, which covers the subjects on the application projects, and scientific and technical experiences based on the substructure needs of big cities with increasing populations, is considered to be included into the program of the 62 nd Geological Congress of Turkey. In this way, it is aimed that the developments in this field, and projects and application approaches associated with solutions of the problems would be discussed by practicing engineers and academicians and the experiences gained would be shared.

Main themes of this session are as follows:

- Underground structures in urban areas
- Stability of deep excavations in urban areas and remedial techniques
- Engineering geological applications for transportation structures in urban areas
- Geological hazards/risks in cities
- Urban site investigation
- Environmental urban geotechnics
- Rehabilitation of historical areas in cities and their protection
- Problems on solid waste disposal in the vicinity of urban developments