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An overall look on the history of Soil mechanics / Geotechnics

Mahmood Vafaeian

Retired Professor of Isfahan University of Technology

mahmood@cc.iut.ac.ir

INTRODUCTION

As most of the graduated persons of Soil Mechanics/Geotechnics branches, and many of students and graduated in Civil Engineering field are interested to know the basic and significant subjects of the Soil Mechanics and its overall historical development from the beginning up to the present time, and they are probably curious to have a list of the most important subjects which can be considered as the main topics for discussions in this field, so the content of present article may be helpful to answer the main questions in this regards.

For this purpose, the present article has been arranged to show the following subjects:

- a) the name of the founders of different topics and theories in Geomechanics / Soil Mechanics and Foundation Engineering
- b) a glance look through International Society of Soil Mechanics and Geotechnical Engineering, ISSMGE
- c) the names of the related Journals and some of the related International Conferences
- d) the names of Rankine and Terzaghi lecturers and mentioning the titles of their lectures. This part aims to two targets: mentioning and regarding the names of the most famous scientists and researchers in this field and the most considerable subjects relative to this field.
- e) Finally, the titles of the papers presented in 17th ICSMGE is overlooked and the number of papers and the name of the author's countries are highlighted.

1- THE FOUNDERS OF THE BASIC FORMULAE (LAWS) IN SOIL MECHANICS

When looking through the historical review of a scientific and technological branch such as Soil Mechanics, it is logically suitable and also necessary to remind the names of the persons who presented and initiated the basic theories or fundamental formulae (though simple) for the first time in this subject. For this purpose, the following list can be presented:

Coulomb C. A. (1736-1806); the shear strength of soil (1776)

Smith (1769-1839); named as the father of Geology

Darcy H. (1803-1858); permeability law (1856)

Rankine W. J. M. (1820- 1872); lateral soil pressure (1857)

Atterberg (1846-1927); Classification of fine soils ()

Boussinesq (1842-1929); distribution of stresses in soil ()

Bell (1847-1956); innovation of direct shear test ()

Fellenius W. (1876-1963); analysis for slope stability (1927)

Terzaghi K. (1883-1963); effective stress, consolidation theory, bearing capacity of soil, foundation design, landslides mechanism, cofferdam analysis, his first book in 1925 named as "Erdbaumechanik" in Vienna as the birth of soil mechanics,

During the time of Terzaghi and after that, in cooperation with him -particularly by his colleagues and his senior students- some valuable scientific and practical reports and articles related to many problems in the field of Soil Mechanics were presented which could help the fast development of this branch of science. For example, in 1932 three of Arthur Casagrande's papers titled: "study on the Atterberg limit of fine soils" (in 1932), "These pages inside the dams" (in 1932) and "The characteristics of non-cohesive soil influence on