Praise

of the Engineer



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PRAISE

of the Engineer

Practice

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Scientist dream about doing great things.
Engineers do them.

James Michener

Introduction



Almost a century after that by Herbert Hoover, 31st President of the United States of America, no commendation, panegyric, apology or adequate literary celebration has been ever written for engineers.

This work was therefore born from the intent to restore awareness and pride to a category of women and men, professionals and researchers, who are always and in any case called upon to play a main role at the turn of history and increasingly in various fields of Science and Technique.

Today, the profession of engineer is nowhere near similar to that of Hoover's time; until a few decades ago, the word "engineer" was referred to exclusively a pro who worked in the construction field. Over the years, as well as the scientific and social evolutions produced and induced by it, engineering itself has evolved, carefully following social transformations. Currently there are over 30 degree courses in Engineering and the main disciplines related to engineering are more than 90.

The project of a new eulogy, therefore, left in the drawer for a few years, has certainly sprang in order to update and broaden the application fields of the profession, even if the main triggers that gave decisive push to its creation have been certainly the tragic ones events of the most recent chronicles (see the collapse of the Morandi bridge in Genova, but also the seismic safety problems of buildings in the Italy earthquake zones, the lack of specialized figures in the Industry 4.0 plan, the implementation of the EU GDPR Regulation on data protection, etc.) which brought the figure and responsibilities of engineers into the spotlight of Media, of the social networks, and, through them, to the attention of public opinion.

The figure of the engineer, albeit eternal mediator between science and society, although today even more adherent to the needs of the people, is not always well known (sometimes even by the engineers themselves).

Among Mathematics, Physics, Chemistry, Technics and Technology, from Archimedes of Syracuse to Samantha Cristoforetti, from Leonardo da Vinci to Larry Page, an extraordinary history of innovations and achievements. Nothing of what man-made today in every part of the world and space would have been possible if the engineers had not been there.

Therefore this commendation wants to be a tribute for the most beautiful profession in the world and for the professionals who exercise it every day amid a thousand difficulties but with awareness and pride.

Mottola, 3 September 2018

Cristian Lentini



t is said that Pallas Athena, goddess of wisdom and favorite daughter of Zeus,

got as a gift by her father the Apollonian and Dionysian clays, the same with which men were created;

and one summer day, in her generous inspiration, starting from these, she kneaded a handful of Science and one of Technique: thus the ingenium was born. "ingenium", a Latin word from which comes other similar terms as "ingegno", "Engineer", "engineering", "engine", "ingegneria", "ingénieur", etc.



Since then Man has guestioned himself about the being, about the becoming, immanent. about the transcendent: he has looked at the tenth of a millionth of a billionth of a centimeter of the structure of a proton such as the thousands of trillions of kilometers of the innermost galaxies of the Universe; he has calculated the infinitesimal fraction of a second as well as the life time of the stars; he has traveled in countless space-time contexts, leaving behind a trail of destruction, of wars, of death, but also of conquests, of hopes, of life; he has crossed centuries as the undisputed the protagonist of History, strongly demonstrating his greatest strength in thought, the most deadly weapon, the requirement that distinguishes him from any other form of life; Nevertheless, it is in the next step, that he has made the human progress possible, translating, through a