

## A New Profile of Engineer: From Management Engineering to Entrepreneurial Engineering

**Authors :** Roberto Cerchione, Emilio Esposito, Mario Raffa

**Abstract :** The relevance and the strategic importance of engineering skills in innovation and in the development of businesses and organizations push to investigate the role of the engineer in society today. In the twentieth century the emergence of a variety of technical and scientific knowledge has led to the rise of new areas of skills going from a "all-comprehensive" engineering to an engineering characterized by many specializations. Organizational and structural changes within companies and the emergence of an industrial society based on multiple interrelationships led to the transformation of engineering education. The objective of this work is to report main steps and many pioneering experiences, both national and international, that have led to establish a graduate degree program in Engineering Management and its subsequent evolution in Entrepreneurial Engineering. The first section of this article focuses on the origins and precursors of Engineering Management education. The second section concerns main Italian education programs. Then the attention is focused on the evolution of Engineering Management in Naples, on the intersectoral nature of this degree program, on the relationship with business community, associations, labor market, small businesses and environment. Finally, the discussion of recent years about the skills that characterize entrepreneurial engineer in society are presented.

**Keywords :** education, engineering management, entrepreneurial engineering, engineering skills, managerial skills, entrepreneurial skills

**Conference Title :** ICESS 2015 : International Conference on Education and Social Sciences

**Conference Location :** Venice, Italy

**Conference Dates :** April 13-14, 2015