Record Nr. UNINA9910299714403321 Proceedings of the 13th International Conference on Man-Machine-**Titolo** Environment System Engineering // Shengzhao Long, Balbir S. Dhillon, editors Heidelberg, Germany:,: Springer,, 2014 Pubbl/distr/stampa **ISBN** 3-642-38968-6 Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (xxiv, 626 pages) : illustrations (some color) Lecture Notes in Electrical Engineering, , 1876-1100; ; 259 Collana Disciplina 620.82 Soggetti Human-machine systems Systems engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "ISSN: 1876-1100." Note generali "ISSN: 1876-1119 (electronic)." Includes bibliographical references. Nota di bibliografia Research on the Man Character -- Research on the Machine Character Nota di contenuto -- Research on the Environment Character -- Research on the Man-Machine Relationship -- Research on the Man-Environment Relationship -- Research on the Machine-Environment Relationship --Research on the Overall Performance of Man-Machine-Environment System -- Theory & Application Research. Sommario/riassunto The integrated and advanced science research topic Man-Machine-Environment System Engineering (MMESE) was first established in China by Professor Shengzhao Long in 1981, with direct support from one of the greatest modern Chinese scientists, Xuesen Qian. In a letter to Shengzhao Long from October 22nd, 1993, Xuesen Qian wrote: "You have created a very important modern science and technology in China!" MMESE primarily focuses on the relationship between man, machines and the environment, studying the optimum combination of man-machine-environment systems. In this system, "man" refers to people in the workplace (e.g. operators, decision-makers); "machine" is the general name for any object controlled by man (including tools, machinery, computers, systems and technologies), and "environment" describes the specific working conditions under which man and

machine interact (e.g. temperature, noise, vibration, hazardous gases etc.). The three goals of optimization of Man-Machine-Environment

systems are to ensure safety, efficiency and economy. Proceedings of the 13th International Conference on Man-Machine-Environment System Engineering are an academic showcase of the best papers selected from more than 400 submissions, introducing readers to the top research topics and the latest developmental trends in the theory and application of MMESE. These proceedings are interdisciplinary studies on the concepts and methods of physiology, psychology, system engineering, computer science, environment science, management, education, and other related disciplines. Researchers and professionals working in these interdisciplinary fields and researchers on MMESE related topics will benefit from these proceedings.