

Conferment of the Degree of Doctor of Science, *honoris causa* A Citation


Professor Chen Shupeng, BSc, MSc

The ancients stand on earth and look up to the sky, and were inspired to infinite thoughts. We, on the other hand, ascend the sky and look down on earth, sensing from remote locations and communicating from afar, all for peace, prosperity and development. Towards the end of the 20th century the new science of geoinformation emerged; it makes use of remote sensing, global positioning systems and network communication, to capture terrestrial images and data from space, and to conduct spatio-temporal analyses of human, commodity and energy flows. Professor Chen Shupeng is the founder of remote sensing and geographical information systems in China. Through indefatigable efforts over decades he has established a new research platform that connects the heavens, the earth and humankind, as well as a firm and profound theoretical foundation for this new science, thus contributing to the large and complex scientific system. His achievements are known all over the world.

Professor Chen Shupeng was born in Pinxiang, Jiangxi Province in 1920. He graduated from the University of Zhejiang in 1941 and stayed on as a faculty member, thus beginning a lifelong exploration of the earth. Initially his research was focused on the survey of landforms and on physical geography. In 1950 he set up the first cartographic research unit in New China, where his main business was to conduct research on landscape cartography and the design of a national atlas. In the 1960's he boldly took charge of a new research project on automation in map-making, in which Chinese scientists chose to be self-reliant, and in that process became recognized as among world leaders in this field. In the 1970's, as computer technology developed by leaps and bounds, Professor Chen's research interests turned towards remote sensing. Leveraging on the accuracy and speed of computer cartography, Professor Chen was able to procure reliable sources of data for the monitoring of the earth's surface and the dynamic mapping of geomorphologic movements. To this end he organized three important experiments, generally known as the three "major battles" in the history of remote sensing in China. These laid the foundation for future developments: in the mechanisms of the transmission of remotely sensed information, and in image formation. In 1983 Professor Chen made a pioneering call for geographical information systems, in order to process and analyze remotely sensed terrestrial and marine data rapidly and in an integrated manner. Under his leadership, many national research projects were launched: on early warning of floods, on urban management, and on the development of coastal regions. Professor Chen has been a strong advocate of research on geographical information systems in China. As the nation developed paradigms and standards for geoinformation, he led international exchanges and trained young researchers. In the 1990's Professor Chen published a series of important works which provided systematic and in-depth analysis on the theoretical foundation of geoinformation science, the targets for research, remote-sensing technology and its practical application. He is a champion for the geoinformation spectrum, which would describe the existing topography, and through spatio-temporal models, reconstruct the past and project into the future.



Professor Chen's research transcends the limitations of time and space, and enables us to better understand the planet on which we live. It enables natural disasters to be forecast, and for crop and fishing yields to be assessed. The result is that life is greatly improved and enhanced in this global village.

Professor Chen is known affectionately among his family as Shijian ("firm as a rock"), which aptly reflects his lifelong association with rocks and the earth. For his geographical research he scaled tall mountains, fathomed deep valleys, traveled thousands of miles and undertook fieldwork in the most hostile conditions. His willpower is as a rock, firm and unbending as he launched new domains of research; his achievements stand out as the mountain peaks that he studies. He commands deep respect and admiration for the way he pursues the academic life. He is rigorous and meticulous as a scholar, and untiring as a mentor. He has published over three hundred learned articles and albums, and supervised some sixty students, who have become leading scholars in China and abroad. In 1980 Professor Chen was elected an Academician of the Chinese Academy of Sciences, in 1992 he was elected an Academician of the Third World Academy of Sciences, and in 1995 he became an Academician of the International Eurasian Academy of Sciences. Professor Chen has won numerous international awards: some thirty prizes including the National Natural Science Award and the State Scientific and Technological Progress Award, the Osborn Maitland Miller Medal of the American Geographical Society (1998), the Chen Jiageng Prize for Earth Sciences (2000), the Special Achievement Prize for Remote Sensing in Asia (2001), the Contribution Prize of the International Karst Society (2001), and the Highest Honour Prize of the International Cartography Association (2001). At the ripe old age of 87 years Professor Chen is still active. He is the Honorary Chairman of the Remote Sensing Research Institute of the Chinese Academy of Sciences, the Honorary Director of the State Key Laboratory of Resources and Environment Information System of the Chinese Academy of Sciences, a member of the State Environment Advisory Committee and of the Committee on International Cooperation for the Chinese Environment and Development, the Chairman of the Academic Committee of the Crisis Management Institute of the Ministry of Civil Affairs and the Ministry of Education, the Honorary Director of the Academic Committee of the Digital Chinese College of Peking University, and a member of the Digital Earth International Academic Association.

In 1997, under the leadership of Professor Chen, the Chinese Academy of Sciences joined The Chinese University of Hong Kong to establish the Joint Laboratory in Geoinformation Science. In 2005, Professor Chen lent his strong support to the Chinese University in building the Hong Kong Satellite Remote Sensing Ground Receiving Station, and served as the Chairman of the Academic Committee of the Institute of Space and Earth Information Science of CUHK. He kindly accepted Shaw College's invitation to be the Sir Run Run Shaw Distinguished Visiting Scholar in 2002-03, and delivered an important lecture titled *Bridging Civilizations and Safeguarding the Earth Village*. He exhorted young students to learn with intensity and focus, to broaden mental horizons and intellectual capacities, to build up a sense of community, and to use science and technology to bridge the gap across civilizations, for the betterment of mankind.



Professor Chen Shupeng once said, “The world today is a civilization that mankind has built through collective effort. We get so far only through communication, through learning from each other, and by advancing together.” Professor Chen has devoted a lifetime’s effort to the promotion of world civilisation, to the conservation and nurture of our habitat the global village. “Everywhere the scenery is just as good; the whole earth shares the same warmth and coolness.” This is the grand wish of Professor Chen, deep from his heart.

Mr Chairman, may I now present Professor Chen Shupeng for the award of the degree of Doctor of Science, *honoris causa*.