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## Pearl River Research Funded by National 863 Program

The Center for Coastal and Atmospheric Research (CCAR) of Hong Kong University of Science and Technology (HKUST) has been awarded two million yuan by the National Hi-Tech Research Development Program (863 Program), bringing the total value of grants HKUST has received from national development programs to more than 107.5 million yuan since 1997.

The two-year project, entitled "Development of Data Integration, Assimilation and Prediction System for Coastal Ocean Environment", is led by Prof Jay-Chung Chen, Director of the CCAR and Dr Alexis Lau, Associate Director of the CCAR.

The research project is aimed at developing an integrated mathematical model that can predict environmental changes and issue warnings for the Pearl River mouth and its nearby waters. Researchers will examine the changes and mechanisms of the hydrodynamic, physical, sedimentation, chemical and biological processes involved, and develop a Coastal Ocean and Atmospheric Prediction System (COPAS) to demonstrate the effect of sea and air interaction on the environment.

The 863 Program was launched in March 1986 as a national strategic development program to promote China's hi-tech development in the key areas of information technology, biology, aeronautics, automation, energy, materials and oceanology. In a renewed effort to enhance its competitiveness in the 21st century, China embarked on the National Key Basic Research Developments Program (973 Program) in March 1997 to support cutting-edge research in energy, information, environment science, medicine and health, material science, agriculture and basic research. The selection process for both 863 and 973 Programs is highly rigorous and competitive.

At HKUST, 10 projects in information technology, oceanology, environment and display technology have been funded by 863 and 973 Programs since 1997. Two major 973 projects are led by HKUST faculty: Prof Jun Gu (Computer Science) received 67 million yuan for his project on applied theory and high-performance software in information technology, while Prof Qiang Du (Mathematics) was provided with 33 million yuan to conduct large scale scientific computation research. Both HKUST researchers were honored by the Ministry of Science and Technology and appointed Chief Scientists to head the two projects.