

Management of the SMART Project

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CENTER FOR SMART CONTROL OF TURBULENCE

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Introduction

The SMART project, formally called "Smart Control of Turbulence: A Millennium Challenge for Innovative Thermal and Fluids" started in April 2000 as a five-year project funded by MEXT, the Ministry of Education, Culture, Sports, Science and Technology, under the program "Study for the Organized Research Combination System with Special Coordination Funds for Promoting Science and Technology: System" which aims at making major technological breakthrough by organizing a team of researchers from several national research organizations and universities. The project has been led by Executive Manager Prof. Ohashi of Kogakuin University. Approximately 60 researchers have gathered to carry out this research with annual budget of approximately 300 million yen. Major contributing organizations are the Japan Aerospace Exploration Agency (JAXA), National Institutes of Advanced Industrial Science and Technology (AIST) of the Agency of Industrial Science and Technology, the National Maritime Research Institute (NMRI), the University of Tokyo, the Tokyo Institute of Technology, Keio University, Aoyama Gakuin University, and Toyo University.

Center for Smart Control of Turbulence

In order to carry out this huge project, the Center for Smart Control of Turbulence (CSCT) has been established in NMRI, and all participating researchers of the project have been assigned as members of CSCT, whose



Fig.1 Organization of the research group and committee

organization is shown in Fig. 1. CSCT is led by two Directors. One is Research Director Prof. N. Kasagi of The University of Tokyo and the other is Management Director Dr. Y. Kodama of NMRI. Important decisions have been made by the Research Management Group, whose members consist of two Directors, leaders of WGs, and leading researchers. The General Research Committee consists of all the participating members of the project. Its meeting is held twice a year for discussing research plans and results. Major research activities are carried out by two WGs, i.e. the Working Group for Active Control of Turbulence and the Working Group for Turbulent Combustion Control. The former WG is further divided into two Working Subgroups, i.e. the MEMS Working Subgroup and the Fluid Property Working Subgroup. The WGs and WSGs are led by leading researchers of national research organizations. Cross-sectional Basic Research Groups have been organized to discuss research topics common to WGs and WSGs. They are measurement, simulation, and actuators. They serve to facilitate exchange of information among WGs and WSGs.

Research Promotion Committee

Since many researchers come from the three national research organizations, the Research Promotion Committee has been established with executive members of each organization. The committee has appointed Prof. Ohashi as the Executive Manager of the project, and supports him in running the project smoothly.

Research Evaluation Committee

The research Promotion Committee has organized the Research Evaluation Committee consisting of nine prominent researchers in the field, five from Japan and four from abroad, for evaluating the research activity of the project and giving technical advice to the members.

Midterm Evaluation

In 2002 the project went through the midterm evaluation by the Council for Science and Technology and was honored "A" evaluation.