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Chiba University small SAR satellite

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Center for Environmental Remote Sensing of Chiba University is currently developing a compact, lightweight (100 kg class) and low cost (about 800 million yen) Synthetic Aperture Radar (SAR) satellite, comparing to existing SAR satellites of large size, mass of several tons and manufacturing cost of billions of yen. We will provide this compact, low cost SAR satellite and reduce the burden on society and industry. Furthermore, we expand the research fields to new data utilization fields (infrastructure monitoring, land and sea surveillance, economic index extraction, etc.) as well as remote sensing fields such as enhancement of disaster prevention and reduction function and global environmental monitoring strengthening and we aim at creating a new business field by providing high frequency observation by constellation of its small SAR satellites and by providing extracting special data processing. Particularly, it is possible to develop new products for expanding use of remote sensing technology to contribute to the creation of advanced innovative remote sensing sensors by developing a compact SAR satellite specialized for a limited mission and advanced and inexpensive sophisticated data processing technology widely for general society and industry. The frequency of developed SAR is L, C and X bands. In this paper we describe the outline of the C band small SAR satellite, satellite bus system, SAR sensor system, constellation, ground system and prototype status.

Biography

Nobuyoshi Imura has his career at Mitsubishi Electric Corporation, Japan Aerospace Exploration Agency, Chiba University. He has been engaged in development of synthetic aperture radar and development of radar satellite for about 40 years, and is pursuing consistent research and development of small SAR satellite, data processing technology and so on by integrating the knowledge and experience with the research achievements that Chiba University has done.

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