Japan Geoscience Union Meeting 2013
(May 19-24 2013 at Makuhari, Chiba, Japan)
©2013. Japan Geoscience Union. All Rights Reserved.

MGI34-10 Room:301A Time:May 19 15:00-15:15

Development of a repository for knowledge of planetary science serving by the Center for Planetary Science (CPS)

Ko-ichiro SUGIYAMA[1*], Ayako Suzuki[1], Tomoaki Nakamura[2], Sho MANABE[2], Iori Tani[2], Shimpei Tatsumi[2], Noriyuki Katoh[2], Megumi Matsumoto[2], Masaki Yamachiyo[2], Hisashi Murakami[2], Ryoichi Tsurumaki[3], Tatsuya Takekoshi[3], Tomomi Oshikawa[3], Takashi Mikami[3], Center for Planetary Science[1]

[1]CPS, [2]Graduate school of Science, Kobe University, [3]Department of Cosmosciences, Graduate School of Science, Hokkaido University

We provide a repository for knowledge of planetary science, in other words, a digital library of lectures as one of the services for planetary science communities at CPS (Center for Planetary Science). We record lectures in seminars and workshops and publish the lecture videos and presentation files on the Internet. The repository contributes to the inter-university and international education and research. In order to promote the service, we have been arranging equipment and establishing work procedure for recording and publication of seminars and workshops, and a design and development of an on-line system for our repository have been performed. In this study, we explain the system, equipment, and work procedure, and report of our experiences in operating the system.

The repositry system is web-based applications and developed as module of XOOPS (http://xoopscube.jp/). The system contains ”register”, ”list”, and ”viewer” pages. The ”register” page is designed to be used by administrator, which provides an interface of the database MySQL for registration of file names and seminar information. The ”viewer” and ”list” pages are designed to be used by user, which provide lecture videos, presentation files, and seminar information. These pages supports standard PC operation systems, such as Windows, Mac, and Linux. In order to improve usability, a search engine and a function, which makes it possible to play necessary part of the lecture videos, are implemented. HTML5 and Adobe Flash are used for IOS and the other operation systems to play lecture videos, respectively.

We adopt extremely simple equipment configuration and always maintain the online manual on our web site. One digital video camera is used to record both the presentation on screen or whiteboard and lecturer’s move. Real-time encoding is performed by using bundled software (QuickTime) in Mac OSX. The recorded characters on the screen and whiteboard have enough resolution. Because many people’s questions and comments have to be recorded, several microphones and a mixer, which adjusts recording levels, are prepared to ensure quality of sound.

By having arranged the simple work procedure and the on-line system, even a non-expert is able to publish lecture video and presentation file in a short time. The lectures of the CPS seminar, which is held once every week, are published within the day. Other seminars and workshops sponsored or cosponsored by CPS are also published using the on-demand system. More than 1400 lectures recorded in 12 years from 2001 can peruse with presentation files, and these lectures can be searched with a lecturer, a title, etc.

Reference: https://www.cps-jp.org/˜mosir/pub/

Keywords: A repository for knowledge of planetary science