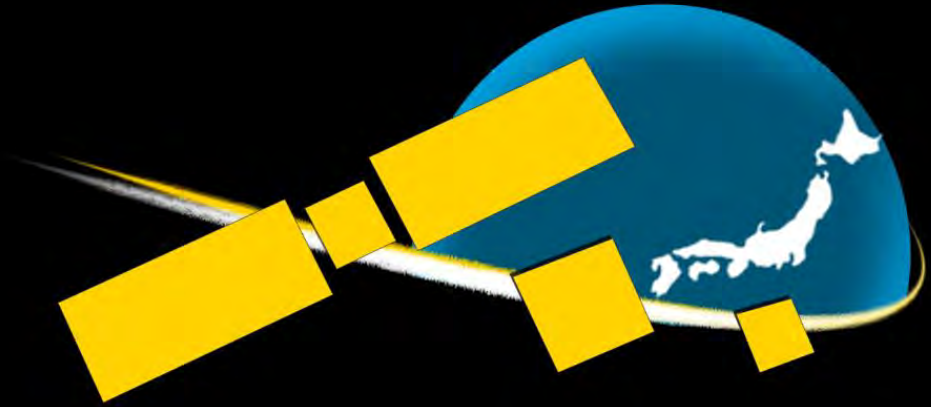


Another expert's lecture
provided for the students
of



SEIC

Space Engineering International Course

Special Guest Lecture by Joel Joseph S. Marciano, Jr., PhD

Director-General
Philippine Space Agency (PhilSA)

**Date: Friday
(4 SEPT 2020)**
Time: 13:30-14:30
Japan Std Time
Language: English

**ZOOM details (with ID
and password) will be
sent to SEIC students via
the SEIC Student Mailing
List on 3 SEPT, before the
day of this lecture.**

Title:

***THE PHILIPPINE SPACE AGENCY
(PHILSA):
VALUE CREATION IN SPACE SCIENCE,
TECHNOLOGY AND APPLICATIONS
(SSTA)***

Abstract:

See the next page.

ABSTRACT

The Philippine Space Agency (PhilSA) was established through the enactment of Republic Act (R.A.) 11363, *“An Act Establishing the Philippine Space Development and Utilization Policy and Creating the Philippine Space Agency, and for other Purposes”*. Also known as the Philippine Space Act, R.A. 11363 mandates the PhilSA to be the primary policy, planning, coordinating, implementing, and administrative entity of the Executive Branch of the government that will plan, develop, and promote the national space program.

Prior to the creation of the PhilSA, a number of space science and technology applications (SSTA) activities have been pursued in the Philippines as project-based initiatives implemented in the University of the Philippines (UP) and the Advanced Science and Technology Institute (ASTI) of the Department of Science and Technology (DOST) in collaboration with international partners and with support from the DOST Grants-in-Aid (GIA). These projects have yielded valuable milestones in space for the country through the hands-on development, launch and operation of microsattellites (Diwata-1 and Diwata-2) and nanosatellites (Maya series), as well as the processing and utilization of satellite images and other space-borne data.

These initial efforts have put in place local capabilities, infrastructure and people in SSTA, which provide the foundation and momentum for PhilSA to build upon and begin implementing new and continuing programs. With the new agency, these are now headed towards strategic localization of upstream space technologies through engagement of local universities and industries in small satellite development, and heightened emphasis on expanding downstream utilization of satellite data and derived products that unlock socio-economic benefits and value creation from space. The capacity shall be nurtured from latency to an operational level that supports the PhilSA’s vision of a Filipino nation bridged, uplifted, and empowered through the peaceful uses of outer space. In this lecture, we will provide a view into these SSTA efforts in the Philippines and the plans for sustaining these activities through the PhilSA.



END

Bio of our guest speaker

Joel Joseph S. Marciano, Jr., PhD

**Director General
Philippine Space Agency (PhilSA)**

**Professor of Electrical and Electronics Engineering
University of the Philippines Diliman**

Bio:

Dr. Joel Joseph S. Marciano Jr. is a Professor of Electrical and Electronics Engineering at the University of the Philippines Diliman (UPD). In January 2020, he was appointed as the first Director General of the Philippine Space Agency (PhilSA), where he is now leading the buildup and mobilization of the newly created national government agency. Immediately prior to the PhilSA, Dr. Marciano served as the Acting Director of the Advanced Science and Technology Institute of the Department of Science and Technology (DOST-ASTI).

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Dr. Marciano obtained his BS Electrical Engineering from UPD and his PhD in Electrical Engineering and Telecommunications from the University of New South Wales in Sydney, Australia. He was a JSPS Fellow at the Tokyo Institute of Technology, Japan in 2003, the UP-Dado Banatao Postdoctoral Fellow at the Berkeley Wireless Research Center (BWRC) in the University of California Berkeley and at the School of Electrical and Computer Engineering at the University of California San Diego (UCSD) in 2004 and 2005, respectively. In 2007 and 2009, he was a Visiting Associate Research Scientist in UCSD.

From 2013-2016, he served as the Interim Director of the Institute for Information Infrastructure Development (IIID) of the Philippines-California Advanced Research Institutes (PCARI) under the Philippines' Commission on Higher Education (CHED). Dr. Marciano has over 25 years of combined experience leading and managing research and operations in technical areas of wireless communications (e.g. software-defined and cognitive radio technology, RFID, MIMO, etc.), radio frequency spectrum management and policy, rural connectivity, emergency response communications, sensor networks, scientific earth observation microsatellites and geospatial AI.

As the Program Leader of the PHL-Microsat and STAMINA4Space programs from 2014 to 2020, he led a team in developing and utilizing the country's first scientific earth observation microsatellites, Diwata-1 and Diwata-2, the nanosatellite Maya-1, and at least 10 more small satellites in various stages of development. These initiatives include associated activities in ground station and mission control operations, data archiving and distribution, remote sensing and artificial intelligence on geospatial data, academic program development and the establishment of local research and testing facilities in small satellites, and local industry engagement in space technology.

Dr. Marciano is a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE), a member of the Institute of Electronics, Information and Communications Engineers of Japan (IEICE) and the ASEAN Engineers. He has received recognitions for his teaching, research and public service, including the Gawad Chanselor Para sa Natatanging Guro (Chancellor's Award for Outstanding Teacher) in UPD, the Outstanding Electronics Engineer in the field of Education from the Institute of Electronics Engineers of the Philippines (IECEP), the DOST 50 Men and Women of Science, the Manila Water Foundation Prize for Engineering Excellence, the Distinguished Alumni Award in Science and Technology from the University of the Philippines Alumni Association (UPAA) and Finalist in the Dangal ng Bayan (National Honor) Awards of the Civil Service Commission.

END OF BIO

Note to doctoral students

This lecture can be counted as "Interdisciplinary Seminar for Engineering 工学融合科目" for Kyutech doctoral students.

However, please note that this lecture will be provided under "Mechanical and Space Systems Engineering Course 機械宇宙システム工学コース". Hence, students cannot count this lecture if it is your own major course.

Instead of getting a stamp 印鑑 as a proof of attendance, submit a one paragraph (75-150 words) summary (typed in English, with student ID number and date, and then signed) using Microsoft Word. Send the file to Prof. Maeda within one week of the lecture. His email address is:

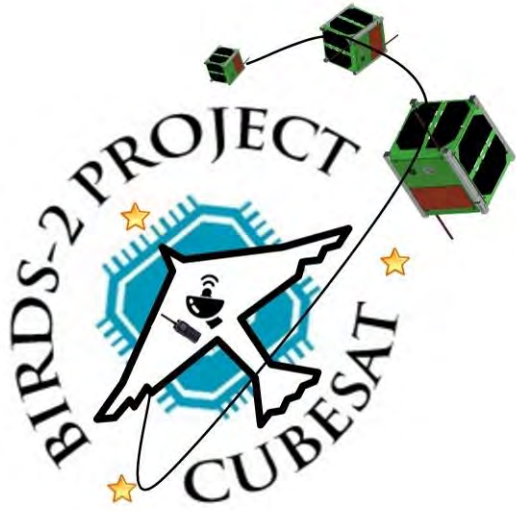
[maeda\[at\]ise.kyutech.ac.jp](mailto:maeda[at]ise.kyutech.ac.jp)

If you do not have "Performance report form of Interdisciplinary Seminar of Engineering", go to this website and download the form:

<https://www.tobata.kyutech.ac.jp/gr-school/gra-menu/>

If you have any questions concerning the contents of this page, please contact the Graduate School Section: [koh-daigakuin\[at\]jimmu.kyutech.ac.jp](mailto:koh-daigakuin[at]jimmu.kyutech.ac.jp)

If you are not a member of SEIC, and you wish to have seminar credit for this lecture, please request the ZOOM ID and password from Prof. Maeda using his email address (see the text at the right).



LaSEINE's friendship with Prof. Marciano and others at UPD (University of Philippines at Diliman) and with DOST (Dept. of Science and Technology) goes back to 2015; see the next few pages.



The Philippines is a member of **BIRDS-2 and **BIRDS-4** projects.**

2015: G. Maeda visits UPD (Manila) for the first time



← I promoted SEIC and PNST programs in this info session (11 Dec. 2015)



Adrian & Prof. Marciano



← Prof. Marciano explains the virtues of SEIC to UPD students

(UPD = Univ. of Philippines at Diliman)



Many meetings



2016: Prof. Marciano participates in 1BIW (First BIRDS International Workshop, at Kyutech, June)



2017: Prof. Marciano participates in 2BIW (2nd BIRDS International Workshop, in Ghana)



Dr. Huzaimy (UiTM, Malaysia) and Prof. Marciano at breakfast, near **ANU**, All Nations University, Ghana.



Marco Gomez Jenkins (Costa Rica) and Prof. Marciano in the main workshop lecture hall.

2018: Prof. Marciano participates in 3BIW (3rd BIRDS International Workshop, in Mongolia) <https://sas.num.edu.mn/birds2018/>



Prof. Marciano & Dr. Adolfo Chavez J. (Costa Rica)



BIRDS workshops are supported (in part) by

JSPS

Logo of the Japan Society for the Promotion of Science (JSPS), featuring a rooster and the text "JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE" and "FOUNDED 1932".

End

**promotional document for talk by
Prof. Joel Marciano on
4 September 2020**