

26th IAA SYMPOSIUM ON SMALL SATELLITE MISSIONS (B4)
Generic Technologies for Nano/Pico Platforms (6B)

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BIRDS-3 SATELLITE PROJECT INCLUDING THE FIRST SATELLITES OF SRI LANKA AND
NEPAL**Abstract**

The Joint Global Multi-National Birds is also famous as BIRDS, is a multinational small satellite project lead by Kyushu Institute of Technology (Japan). BIRDS project gives opportunity to non-space fairing nations to design, integrate, build, test, launch and operate their nation's first satellite. This paper focuses on BIRDS-3 which is the third batch under BIRDS project. BIRDS-3 is a constellation of three 1U cubesats belonging to Japan (Uguisu), Nepal (NepaliSat-1: Nepal's first satellite) and Sri Lanka (Raavana-1: Sri Lanka's first satellite). BIRDS-3 has two members (students) from Nepal, three from Japan, and two from Sri Lanka and one from Bhutan. These students have been enrolled in Space Engineering International Course (SEIC) in Kyushu Institute of Technology. External dimensions of one satellite is 113.5mm x 100mm x 100mm and the weight is approximately 1.05kg. This constellation will execute four missions: Imaging Mission (CAM), Attitude Determination and Control System mission(ADCS), LoRa Demonstration Mission (LDM), Software Configurable Backplane Board Mission (BPB). Currently satellite development is completed and all three satellites are delivered to Japan Aerospace Exploration Agency (JAXA). The launch is expected to be in mid of April 2019 and the deployment is expected to be completed in May 2019. After deployment satellites will be operated for 6-12 months through BIRDS ground station network. This paper shall describe the background, missions, stakeholders and initial operational results after the deployment from International Space Station (ISS).