

**Vision and Plan for Korea Lunar Resource Prospecting.** T. S. Lee<sup>1,2</sup>, B. C. Chang<sup>2,3</sup>, H. Shin<sup>4</sup>, J. Lee<sup>5</sup>, and J. Lee<sup>2,6</sup>, <sup>1</sup> Korea Institute of Civil Engineering and Building Technology (283, Goyangdae-ro, Ilsanseo-gu, Goyang-si, Gyeonggi-do, 10223 Republic of Korea, tslee@kict.re.kr), <sup>2</sup> International Space Exploration Research Institute of Hanyang University (55 Hanyangdaehak-ro, Sangnok-gu, Ansan, Gyeonggi-do, 15588 Republic of Korea), <sup>3</sup> Korea Institute of Civil Engineering and Building Technology (bcchang@kict.re.kr), <sup>4</sup> Korea Institute of Civil Engineering and Building Technology (hyushin@kict.re.kr), <sup>5</sup> Korea Institute of Civil Engineering and Building Technology (jlee@kict.re.kr), <sup>6</sup> Korea Institute of Civil Engineering and Building Technology (engine@kict.re.kr).

**Introduction:** In 2013, Korea successfully launched its first space rocket, the Korea Space Launch Vehicle-1 (KSLV-1), also known as Naro-1, on its third attempt. This accomplishment furthered the Korea Space Program's progress towards the goal of exploring the Moon, Mars, asteroids, and deep space in the near future. And now Korea has a vision and plan for Korean lunar exploration by 2020 as a first step towards achieving this goal.

The Korean Lunar Exploration Program, supported by National Policy Plan #13, plans to launch an orbiter and lander, which includes a rover, by 2020.

**Convergence of National Research Institutes:** In 2014, 15 national research institutes including KICT and led by KARI, cooperated on advanced research tasks for the Korean Lunar Exploration Program. The research institutes were coordinated by the Ministry of Science, ICT and Future Planning. The project was organized into four sub-categories: probe, payload, deep space network, and rover. It was a good example of national research institutes converging towards a common goal, with achievements made through voluntary investment and cooperation.

Through the project, not only KARI but also other national research institutes became interested in lunar exploration and began to build a foundation for further collaboration on the Korean Lunar Exploration Program.

**Korea Lunar Resource Prospecting:** The Korea National Research Council of Science & Technology is supporting convergence research to realize space resource exploration. With this aim, KICT is leading a team of other national research institutes to make possible lunar resource prospecting, which is a new field for Korea. The team has a vision to develop lunar resource prospecting technologies that will contribute to Korean and international planetary exploration missions.

Details of the proposed vision and plan, also including the Korean Lunar Exploration Program, will be introduced at the meeting.