



## **A proposal of lithosphere-atmosphere-ionosphere coupling observation mission by small satellite constellation**

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The Earth Electromagnetic Environment Monitor Satellite (ELMOS) was a one proposal for the small scientific satellite series of ISAS/JAXA. In 2010, we have re-proposed it as a satellite constellation composed by one small satellite and 4-6 microsattellites that all the satellite equipped 3 common instruments; GPS occultation receiver, electron density and temperature probes. Mission objectives of the ELMOS constellation are as follows; 1). Practical Utilization: improvement of the weather forecast accuracy by GPS occultation measurement 2) Scientific Research from the Ionosphere to the Lithosphere: ionosphere-atmosphere coupling, global warning, atmospheric electricity, seismo-electromagnetics and oceanography etc. 3) Engineering Applications: space environment monitor and space weather. Particularly, we expect promising results of seismo-electromagnetic research based on the reliable ionospheric model. The ELMOS constellation can be realized in short-time and low-cost development because most of the instruments are simple, reliable and space-proven.