

IAA MULTILINGUAL ASTRONAUTICAL TERMINOLOGY SYMPOSIUM (E8)
Multilingual Astronautical Terminology (1)

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SPACEGPT: A SUPERVISED LLAM DEVELOPMENT PROJECT FOR STANDARDIZED
TERMINOLOGIES COLLECTION, TRANSLATION AND EXPLANATION FOR SPACE IN VARIOUS
LANGUAGES AND DIALECTS**Abstract**

Live translations in space conferences do not capture the entire scope of the technologies and innovations present in them. This is not the problem with the translation abilities, but with the jargon and terminologies associated with it. Since there is no common script for the space terminology it is preventing the users from acquiring the required knowledge (for example some terminology used in a particular country can not be referred to in another country due to language barrier, similarly in case any innovation and development in space technologies it is not readily updated in other languages) which hinders the development and growth of new research in space when compared to other fields which are having an open dictionary of terms. This barrier may cause confusion in the combined ventures of various agencies. To resolve these blockades in space terminology access, We propose a system or model which is backed by Human supervised Large Language Model (LLaM) which will be trained on the Space terminologies from the various space organizations and interested private space companies for developing a unified terminology standard having details about the non-confidential space terminologies. This model now can be used for providing translation and explanation for the technologies in one language to another language in various levels of complexity and data revelation. This can also be used as that knowledge where info about any space-related term can be answered. Since space is always associated with the Military, it is difficult to release every piece of data. But in the near future of unified space technologies, this tool can be used as a training tool for new employees in a Joint venture of various space research organizations. This model will have the confidence score for each output it generates (along with user feedback) and if it has less confidence about a topic or translation, it will be flagged to have human support which again retrains the system thus providing the Supervised training. This growing library of data will be maintained and can be shared for future new companies which are entering the Space sector as the guide or assistance through the field. In future, this model will act as a base with whose data others will be developed till true intelligence is achieved.