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## The Pan African Planetary and Space Science Network – PAPSSN

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Planetary and Space Science, and Technology (PSST) are playing a vital role in driving the Knowledge Economy and the 4<sup>th</sup> Industrial Revolution in Africa. An actioned commitment to PSST leads to greater security, safety, and agricultural productivity and drives human capital development (HCD) in high-tech sectors of the economy. PSST enthuses young people to pursue studies and ensuing careers in science, technology, engineering and mathematics (STEM). PSST for Africa means not only blue-sky research and skilled graduates in STEM disciplines but is also linked to socio-economic development as many countries have seen already the benefits for PSS technology and industry for agriculture projects, earth observation, communication networks, monitoring/prevention of disaster and geohazard, space defence and telemedicine amongst others.

To fulfil the ambitious goals set by the African countries in their space strategy documents, there is a desperate need of graduates in STEM-related disciplines, including PSST. Africa's current stock of graduates with secondary- and tertiary-level skills is still highly skewed towards the humanities and social sciences, while the proportion of students in STEM averages less than 25%. Beyond the shortage of graduates in the PSST field, the development of a pan-African PSST agenda is hampered by the lack of coordination of the Higher Education Institutions that are currently offering PSST programmes and by the lack of standardization of such programmes and internationalization of the Institutions themselves.

The Pan-Africa Planetary and Space Science Network (PAPSSN) aims to fill this gaps by implementing a continent-wide mobility scheme for students, academic staff and support staff working in any field related to PSST. The PAPSSN is a consortium composed of Higher Education Institutions and associated partners from Botswana (Botswana International University of Science and Technology, BIUST), Ethiopia (Addis Ababa University, AAU), Nigeria (University of Nigeria Nsukka, UNN), South Africa (University of the Witwatersrand, Wits) and Zambia (Copperbelt University, CBU).

The PAPSSN project presents an innovative solution to the shortage of soft skills in Africa as it concentrates upon the consolidation of PSST in the area of remote sensing from space, planetary science, planetary geology, astrobiology, satellite technologies, astronomy and astrophysics, within the tertiary education system across the continent.

The overarching objective of PAPSSN is to support the development of a skilled and innovative graduate students' community and improve their job preparedness for the growing PSST labor market and foster their capacity of operating local infrastructure, generating local data and engaging with the international community of scientists and entrepreneurs.

The PAPSSN project will sponsor a total of 65 bursaries over the next 5 years, including 36 MSc, 14 PhD and 15 for staff (academic and support staff). In conclusion, we believe that PAPSSN will improve the employability of students through a mobility programme that will prepare them for leading roles in the future PSST market that is expected to develop across Africa over the next decades.