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SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Enabling the Future - Developing the Space Workforce (5)

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LABORATORY FOR SPACE INSTRUMENTATION LINX: A BROAD STRATEGY FOR THE BUILD-UP OF MEXICAN HUMAN RESOURCES AND INFRASTRUCTURE IN SPACE TECHNOLOGY USING ASTROPARTICLE PHYSICS AS A MOTIVATING FORCE

Abstract

Space technology in Mexico is an incipient field with many challenges, spanning scarce financing, lack of appropriate infrastructure and, most notably, shortage of specialized human resources. The laboratory for Space Instrumentation, LINX, homed by the Institute of Nuclear Sciences at UNAM, is an attempt to meet these challenges using a comprehensive strategy gathering a large variety of space projects, both local and in international collaborations, which initially uses frontier astroparticle experimental space physics as motivator and trigger, but expands from there into areas of social interest, like meteorology and hurricane surveillance, or inspirational projects like the development of robotic systems onto the lunar surface. The learning and application tools range from stratospheric ballooning to nano-satellites, while human resources are formed around their design, construction and operation in a way that strives to achieve consistency between mission requirements and academic time-scales and financial resources filling, at the same time, strategical technological niches.