



CubeSats: An innovative way of Classroom Based Learning

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Dr. Rehan Mahmood has done his Masters from University of Surrey in Satellite Communication and PhD in Satellite Engineering from Beihang China.

He has vast Experience of Spacecraft Engineering including CubeSats/nano-satellites mission planning, designing and subsystems development.

He was the Project Manager of ICUBE-1, the first CubeSat launched by any university in Pakistan.

Currently, He is Lab Director of Small Satellite Technology and Research Lab (SSTRLL) which is the only lab in Pakistan working on the development of CubeSats and promoting satellite technology in various parts of Pakistan through different workshops and seminars. He is working on numerous CubeSats project that include ICUBE-N (National CubeSat of Pakistan) along with promotion of STEM education in Pakistan.

CubeSats: An innovative way of Classroom Based Learning

A CubeSat is a class of miniaturized satellite based around a form factor consisting of 10 cm cube. They are usually used as learning tool in educational institutions and students can develop the whole satellite and can launch it into the space. CubeSat based training equipment can provide a complete learning experience about the all subsystems of satellite. The significance of CubeSats in education lies in their ability to provide hands-on learning opportunities for students in a variety of STEM (Science, Technology, Engineering, and Mathematics) fields. In addition, CubeSats development is a multidisciplinary approach which provide real-world experience with low cost. SSTRLL is developing various CubeSats (ICUBE-CSAT, ICUBE-KidSat) and the developed prototype is constantly improved further to transform into training kits and are now being used for the hands-on experience of students through our various workshop. The lab is also encouraging the active involvement of students in the development of satellites.