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

Author: Dr. Najam Naqvi
Institute of Space Technology (IST), Pakistan

Ms. Aqsa Zouq
Institute of Space Technology (IST), Pakistan
Mr. Usama Ahmed
Institute of Space Technology (IST), Pakistan
Ms. Umaima Khan
Institute of Space Technology (IST), Pakistan
Mr. Daniyal Raza Kazmi
Institute of Space Technology (IST), Pakistan
Mr. Muhammad Aqib Khan
Institute of Space Technology (IST), Pakistan

ACADEMIA MEETS INDUSTRY: A FRAMEWORK FOR SUSTAINABLE SPACE INNOVATION

Abstract

Academia-industry collaboration is a key driver of innovation in space science, facilitating implementation of research findings into practical applications. Such partnerships are particularly crucial for developing countries, where resource constraints necessitate strategic alliances to advance space technology and applications. The National Center of GIS Space Applications (NCGSA) at the Institute of Space Technology (IST), Islamabad, has established a Research Fund (RF) Program to strengthen this collaboration, leading to the successful execution of 13 projects in Remote Sensing GIS, GNSS, Space Education, Astronomy Astrophysics, and Small Satellite Technology. Key Performance Indicators (KPIs) and an organized monitoring and evaluation system guaranteed project impact, resource efficiency, and industrial relevance. With more than 600+ project outputs achieved since the start of the RF program, in Academic Research Development, Hardware Software Solution Development, Data Inventory Management, Maps Model Development, Capacity Building and Linkages Commercialization. These metrics optimized research efforts by offering a data-driven method of tracking results. Research Fund Program illustrates a scalable and replicable strategy for academia-industry collaborations in space research by incorporating performance-based evaluation. The accomplishments of these programs demonstrate how developing countries can use industry resources and scholarly knowledge to propel technical progress.