

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
Interactive Presentations - IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (IP)

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EMPOWERING SPACE SCIENCE EDUCATION IN BAHRAIN: NSSA'S INNOVATIVE OUTREACH  
AND ENGAGEMENT MODEL

**Abstract**

The significance of space education cannot be overstated. It serves as a crucial pillar for inspiring the next generation of scientists, engineers, and thinkers, equipping them with the knowledge and stimulating curiosity to explore the final frontier. The National Space Science Agency (NSSA) of Bahrain is at the forefront of this educational revolution. However, despite NSSA's efforts, since its establishment, there was very little awareness about space science and technology among the general population. Recognizing this challenge, NSSA embarked on a mission to enhance space science awareness and education through its various programs, which have significantly improved public understanding and interest in space over the years.

The National Space Policy and NSSA's strategic plans, underscore a steadfast commitment to space awareness, with goals explicitly aimed at broadening the reach of space science education. The NSSA's community engagement and outreach 2-year plan, specifies goals, target audience, methods, content, Implementation plans and evaluation. Through a diverse array of initiatives, from space camps and school exhibitions to motivational talks, career days, and workshops, NSSA adopts a comprehensive approach to inspire and inform. These efforts are complemented at the higher education level, where NSSA professionals mentor students in space-related projects, providing a practical, hands-on dimension to their academic pursuits. A notable highlight of NSSA's impact is the dramatic surge in student engagement in space-oriented competitions, particularly the annual NASA Space Apps Challenge, where participation has soared by 300

To measure the effectiveness of space awareness and education initiatives by NSSA, we conducted surveys with students, interviewed them, and organized focus group sessions. These methods provided invaluable insights into the impact of NSSA's programs on students' awareness and enthusiasm for space science. By integrating space-related themes across fundamental subjects in the National curriculum and embedding Space in STEM activities, NSSA cultivates an early and pervasive culture of space curiosity and enthusiasm.

NSSA's inclusive outreach endeavors extend to all levels of society, promoting space science literacy across Bahrain at no cost. This approach not only democratizes access to space science education but also serves as a model for emerging nations looking to cultivate their space capabilities. Through its integrated, strategic, and inclusive awareness and educational initiatives, NSSA not only educates but

also inspires, setting a global benchmark in space science outreach and positioning Bahrain as a leader in space education in the Arabic-speaking world.