



MNS2025
Jiaxing · China

MOHAMMED AL TAMIMI

Mission Operations and Systems Lead –
Sat813, The National Space Science & Technology Center (NSSTC)
at the United Arab Emirates University (UAEU).



Lecture:

Satellite Systems Overview with a Deep Dive into Nanosatellite Power Design

Mohammed Al-Tamimi is an Electrical Engineer specializing in satellite systems, with hands-on experience in design, testing, and operations. He is currently pursuing a Master's degree in Electrical Engineering at the United Arab Emirates University (UAEU), where his research focuses on applying artificial intelligence to develop autonomous fault detection, isolation, and recovery (FDIR) systems for small satellite power subsystems. He also holds a Bachelor's degree in Electrical Engineering, with a strong foundation in CubeSat power system design.

Mohammed currently serves as the Operations and Systems Lead for The Arab Satellite 813 at the National Space Science and Technology Center (NSSTC). In this role, he oversees ground-space system integration, command and telemetry testing, operational planning, and qualification procedures. He has actively participated in Assembly, Integration, and Testing (AIT) phases and has also supervised upgrades to ground station systems. Previously, as an Electrical Engineer on the same mission, he contributed to spacecraft design reviews and evaluated the power and communications budgets for a low Earth orbit (LEO) Earth observation satellite.

His experience includes working on the Electrical Power Subsystem (EPS) of "ALAIN Sat_1", a 3U CubeSat, during his industrial training at NSSTC. He also contributed to the design, development, and testing of a Power Management and Distribution (PMAD) unit for nanosatellite systems.

Mohammed is a co-author of a publication accepted for ISPRS 2025, highlighting the Arab Satellite 813's capabilities for Earth observation and environmental monitoring. He is also preparing three technical papers for IAC 2025, focusing on hyperspectral data sharing, subsystem integration, and platform-level validation. He was awarded at the Satellite Challenge during Expo Dubai 2020, completed NASA Space Camp in 2021, and payload training in 2023. His areas of expertise include mission analysis, system engineering, FlatSat testing, and satellite-ground communications.