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Meet Mohsen Al Awadhi, a dreamer on a mission

HIS ROLE IN HOPE PROBE FINDS HIM A PLACE AMONG 'UAE DREAMERS'

IN THE SPOTLIGHT

DUBAI
BY ANJANA KUMAR
Senior Reporter

Mohsen Al Awadhi wears many hats. He is Mission Systems Engineer (MSE) on the Emirates Mars Mission. He is working at the UAE Space Agency as the director of Space Missions Department. He also was part of the Mission Systems Engineering team. However, it is his involvement in the mega successful Emirates Mars Mission project of UAE — Hope Probe — that has given him a place of prominence like no other.

Al Awadhi's commitment towards the space agency has won him the honour of being one of the faces featured at the UAE Pavilion in Expo 2020 Dubai. He is one of the inspirational dreamers showcased at the pavilion and his story is there for all to see and share.

'My dream work'

"As the lead MSE, I was responsible for performing systems engineering, test engineering, risk management, planetary protection and leading the science phase of the mission. It was always my dream to work in the field of space. That dream has finally become a reality," Al Awadhi, who is a Master of Science in aerospace engineering, graduating in December 2019 from the University of Colorado Boulder, told *Gulf News*.

He specialised in bioastronautics (the study and support of life in space) and systems engineering from the university where he also earned a graduate certificate in satellite systems design.

Working for the Mars Mission

Al Awadhi said: "Our work involved three segments: Space, which had to do everything about the spacecraft. Ground, which pertained to the mission's operations. Launch, which was about launching the vehicle. My role was to ensure that the spacecraft was designed in accordance with our requirements. It had to sync with the specifications from the other segments



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Gulf News Archives

■ MBRSC engineers working on the UAE Mars mission. Al Awadhi says his role was to ensure that the spacecraft was designed in accordance with UAE's requirements.

that were all equally critical."

"Once the spacecraft was ready, we had to plug it into the launch vehicle. The spacecraft had to be controlled and commanded from the ground, which required a considerable amount of coordination. We call it the Mission Operation Centre (MOC)," said Al Awadhi who completed his bachelor's degree in engineering management in May 2014 from the Higher Colleges of Technology, Dubai.

He said his job on the mission also involved making sure there was "planetary protection". "What this means is that we, as a

team, had to ensure there was no cross-contamination between the two planets — Earth and Mars. Basically, we had to ensure we were not taking anything from Earth to Mars. Risk management was also a role I was leading in. One of the last roles I had was as the lead of the science phase activity, to make sure all the operations needed on the spacecraft were in accordance with the scientific parameters."

The privilege of being a UAE dreamer

Al Awadhi said he was privileged to be one of the dreamers at the UAE pavilion. "Being

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Mohsen Al Awadhi
Director, Space Missions Department, UAE Space Agency

part of the UAE pavilion has been a very important aspect. We had many ideas when the Mars mission was in its planning stages, to show the project to the public ahead of its launch. But the pandemic happened and it shattered our plans. But thanks to the UAE Pavilion at Expo 2020 Dubai, we are now able to show our residents and the public our great project. The whole mission has been momentous as a country as young as the UAE has sent a spacecraft to Mars — that too when the nation is celebrating its Golden Jubilee. It was special and I am glad it is being showcased at the UAE Pavilion."