

World Congress on

CHROMATOGRAPHY AND SEPARATION SCIENCE

&

International Conference and Exhibition on

SATELLITE AND SPACE MISSIONS

November 12-13, 2018 | Rome, Italy

J Chem Tech App 2018, Volume 2

OMIT-SAT: AN OPEN MESH INFRASTRUCTURE FOR TELEMETRY IN DISASTERS

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Natural disasters usually lead to a backdown of telecommunications. OMIT-APRS is a proven technology for resilient messaging in a mesh network. Network partitions are mitigated by I-Gates, internet connected nodes in the mesh and HF-Gates, nodes interconnected using shortwave radio. With OMIT-SAT we are proposing a CUBESAT on a LEO operating on worldwide freely available ISM frequencies able to store and forward messages all over the planet. The first mission will carry an SDR (e.g. HackRF) with the capability to receive firmware updates from the ground station to test a variety of frequencies and modulations. This project is part of the IBM Call4Code challenge and also available as open source project open to anyone to contribute to.