Satellite Communications System Engineer (NASA)

Teltrium is a technical services company that provides systems engineering and project execution support and capabilities to satellite communications and spectrum management technology programs.

We are seeking Electrical Engineers with fundamental knowledge of satellite communication systems to join our growing team. This Engineering position is responsible for supporting systems engineering as well as modeling and simulation activities at NASA Headquarters for the Space Communications and Navigation (SCaN) Program Office including (but not limited to):

- Systems Engineering Activities: R&D transition plan and technology roadmap development; technology insertion opportunities assessment; concept development and verification; requirements development, management and traceability; interface definition and management; analyses and trade studies, end-to-end network performance, RF and baseband system/subsystem evaluation; system validation and verification; deliverables review and configuration management processes.

- Modeling & Simulation Activities: network performance (throughput, packet error rate, latency, traffic flow analysis); satellite communications analysis (coverage analysis, link analysis, signal acquisition analysis); interference analysis (RFI analysis and simulation, co-channel and adjacent channel, intermodulation, intersymbol interference); RF communication link analysis (modulation performance, coding performance, bit-error-rate estimates, aggregate signal to noise-analysis); antenna analysis (blockage & multipath analysis, pattern generation, footprint calculation).

Qualifications

Education: Bachelor of Science in Electrical Engineering, completed or in progress master’s work in Electrical or Telecommunications Engineering, or in progress doctoral work in similar fields.

Years of experience: 0-5 years of experience

Role / Work Schedule

We are looking for graduate level engineers who are interested in full-time work following graduation, or part-time work as they are completing their studies. The selected candidate will have the opportunity to shape the specifics of analysis, will have responsibility for completion of that work, and will engage with team members contributing to broader project objectives.
Preferred Skills

- Self-starter and creative problem solver.
- Familiarity with ground station/network equipment and protocols in satellite communication (RF modulation techniques, error coding, and standards).
- Experienced with one or more modeling tools is desirable which may include Matlab, Simulink, STK or NS3.
- Strong organizational skills and attention to details.
- Excellent verbal and written skills including articulating and presenting technical topics in a clear and concise manner to peers as well as executive level customer audiences.