

# Senior Systems Modelling Consultant



**COMPANY:** e2E SERVICES LTD.  
**JOB REF:** RES. 043  
**ROLE:** Permanent  
**LOCATION:** Welwyn Garden City, UK, possibility for remote working.



## Our Company

We have been at the forefront of innovation in the satellite communications industry for two decades, offering to all its stakeholders unrivalled expertise to design, develop and operate state-of-the-art solutions and systems, world-wide. Our portfolio of services and technology know-how covers the entire spectrum of any satellite communication project, from market opportunity sizing and end-user requirements down to ground network development, commissioning, and operations. To both commercial and defence related domains, we also offer unique modular and agile technology to enable a more user-friendly and accessible use of satellite communication resources.

Innovation and ingenuity are the guiding principles of anything we do for our customers. Working with e2E requires a high level of dedication and personal motivation, commitment, and a drive to continually seek to improve things but the results our Group has consistently achieved over the years, at personal and team levels, are outstanding and make e2E a great place to work.

## Job Description

We are expanding our team and are seeking a **Senior Systems Modelling Consultant** to lead the modelling and simulation activities on a range of defence and commercial satellite mission projects.

The Senior Systems Modelling Consultant will be responsible for modelling concept of operations, systems performance, and design reference missions in support of ground and space-based service-oriented architectures intended to service next generation space capabilities. Mission modelling is to be conducted in collaboration with design, development and study teams working on space-based systems and their ground support systems in Earth Observation, Communications, and Global and Regional Navigation system architectures.

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## Key Responsibilities

- Define space, ground and mission architectures for LEO and GEO missions in Earth Observation, Communications and Navigation applications.
- Analytically construct complex mission's systems into representative models and build a system wide model.
- Define mission operations scenarios, conducting representative simulations using developed models and produce technical analyses of outcomes.
- Develop end-to-end space system architecture analysis and simulating operational tasking and resource utilization.
- Utilise various mission analysis techniques and software tools, such as MATLAB, SIMULINK, STK etc, to create system models.
- Integrate third party models and simulations from industry and academia into mission wide models.
- Lead complex space-based and ground segment architecture trade-off studies.
- Lead system-level integration and validation activities during system prototyping and development phases.
- Initiating and leading analysis activities for space-based satellite systems, including system utility, capacity, subsystem modelling, and performance assessments.
- Conduct functional analysis, timeline analysis and detailed trade-off studies.
- Develop bespoke analysis tools, visualizations, and media presentations.
- Communicate clear and concise insights and observations based on complex analytical models and technical data interpretation to senior-level leadership and customers.
- Mentoring junior and mid-level systems engineers and reviewing their work for quality.
- Support the Company Business Development team and provide relevant inputs for competitive commercial tenders.

## Skills, Character and Experience

### Essential

- In depth knowledge of space-based Earth Observation, Communication, Navigation missions, and systems.
- Knowledge and experience of various mission analysis techniques and software tools, such as MATLAB, SIMULINK, STK etc. Hands-on work with data simulation toolsets.
- Experience in Concept of Operations development for space-based programs.
- Understanding of Agile software development practices.
- Background working with structured software systems engineering standards.
- Experience in using physics-based modelling and data simulation routines.
- UK or NATO Security clearance required or at least the ability successfully apply for clearance.
- BSc degree or higher in Engineering or a related technical field is required plus 8 or more years related experience. MSc. or Ph.D., may substitute for 4 years of experience.
- Programming skills in a high-level scripting language such as MATLAB, Interactive Data Language (IDL), STK, and Python.

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### Desirable

- Object-oriented programming, C/C++, Java, Javascript, AngularJS, Django, and Postgres, would be a distinct advantage.

### Salary

- Salary is dependent on skills/experience plus a growing list of Company benefits.
- Please apply by sending your CV to [recruitment@e2egroup.co.uk](mailto:recruitment@e2egroup.co.uk)
- By submitting your CV/application you are consenting to e2E Group using and storing information about you for monitoring purposes relating to your application of future employment. This information will only be used by e2E Group.

e2E Group is committed to achieving workforce diversity and welcome all applications irrespective of social and cultural background, age gender, disability, sexual orientation or religious belief.

