
Title: Principal EC&I Engineer
Location: Chorley
Reporting to: Head of Engineering

Main purpose of the position

The Principal EC&I Engineer will be responsible for leading design teams to produce the designs for NIS projects. These designs will cover the full project life cycle from concept design through to manufacture and commissioning.

The engineer will lead a multi-discipline design team and be responsible for coordinating and planning the design of equipment. The engineer will interface with the project manager, engineering manager and client.

Work will be managing a team of designers reporting to the Engineering Manager.

Specific areas of responsibility

- ✓ Produce or manage the production of design concepts / layouts.
- ✓ Carry out technical risk analysis on designs for EMC compliance and CE certification.
- ✓ Produce or manage the production of designs that conform to the relevant British and European standards and client requirements.
- ✓ Produce or manage the production or maintenance of a technical file in accordance with NIS Quality Assurance.
- ✓ Ensure that the design addresses operability, maintainability and safety issues.
- ✓ Produce or manage the production of Design Justification Reports that demonstrate the design mitigates all technical risks identified.
- ✓ Produce or manage the production of a level of information (drawings, specifications, works instructions, etc.) that enable manufacturing to take place.
- ✓ Check drawing details.
- ✓ Undertake or manage design studies and the production of reports on outcome while making recommendations.
- ✓ Ensure designs meet the required project programmes, budgets and quality.
- ✓ Support the Business Development process, being the technical lead within bid team.

Technical competency & development

- ✓ Highly experienced with design of complex electrical systems for, including but not limited to:
 - Robotics and automation systems.
 - Materials handling equipment.

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- Remote handling systems.
- Pneumatic and hydraulic systems.
- Containment and shielding systems.
- Decommissioning systems.
- ✓ Proven capability to manage multi-discipline design teams to deliver engineering projects within time and budget.
- ✓ Ability to present designs to internal audiences and clients.
- ✓ Knowledge of CDM and CE marking requirements.

Additional tasks

- ✓ Actively participate in the development of NIS' Engineering Department skills, tools and techniques.
- ✓ Undertake design estimates to support business development activities.
- ✓ Be line manager for allocated engineering teams, providing supervision, mentoring and undertaking periodic staff appraisals.
- ✓ Chair design reviews, risk assessment meetings, present designs etc.
- ✓ Carry out any other tasks within the job holder's capability as requested by the Engineering Manager.
- ✓ When required be part of the test and commissioning team which could require having to work away from home for short periods.

Reporting relationships

Reports to: Head of Engineering

Key interfaces: Senior Electrical Engineers, Electrical Engineers

Standards

- ✓ Compliance with company procedures and policies.
- ✓ Display a professional, acceptable attitude and image for all work associated with and undertaken on behalf of NIS Ltd.
- ✓ Champion and up hold the NIS values: Respect, Commit, Protect, Inspire.

Experience and qualifications

Qualifications	Essential	Desirable
Relevant Engineering degree	✓	
Chartered Engineer or progressing towards	✓	

Experience & Knowledge	Essential	Desirable
Substantial experience in similar role	✓	
Management of design teams	✓	
Low voltage control gear	✓	
Control systems	✓	
Machinery safety directives	✓	
Instrumentation	✓	
BS7671 18 th edition & EN 60204	✓	
BS EN 60204-1 safety of machinery	✓	
CE marking process	✓	
PLC Systems	✓	
Drive Systems	✓	
Nuclear engineering experience	✓	
Design of electrical systems for gloveboxes		✓
HAZOP/HAZID experience		✓
Testing and commissioning		✓
Software production		✓

Skills & Abilities	Essential	Desirable
Produce diagrams compliant with BS8888 & BS5070	✓	
Calculations Electrical & Safety	✓	
IT proficient	✓	
Production of technical reports and documents	✓	
AutoCAD		✓
Risk assessment techniques	✓	
Engineering substantiation	✓	
Resource management and planning skills	✓	
SIL rating and BS EN 61508	✓	
Effective presentation skills	✓	
Testing and Commissioning	✓	



Other	Essential	Desirable
Ability to work to tight deadlines and under pressure	✓	
Self-motivated	✓	
Full driving licence	✓	
British National and SC clearance (or ability to acquire)	✓	
Able to work away from home for short periods	✓	
To work in accordance with NIS policies	✓	

Security clearance

If not already cleared, candidates should be willing to undertake appropriate level of clearance.

If you wish to apply for this vacancy, please ensure you have read the full Job Description and Person Specification which is available from HR, and then submit an expression of interest via email: HR@nisltd.com.