Lead Systems Engineer, MR Safety

GE Healthcare Imaging Engineering Technology - Mid-Career

09/06/2021 / R3593897 / Relocation Assistance: No / 1200 North Greenview Boulevard, Waukesha, WI 53188-1678, United States Of America

About Us

GE will only employ those who are legally authorized to work in the United States for this opening. Any offers of employment are contingent upon the applicant successfully passing a background check and other relevant pre-employment assessments. GE is an equal opportunity employer and is committed to providing a workplace free of harassment and discrimination in violation of applicable law. All employment is decided on the basis of merit, qualifications, and competence and we will not be discriminated against based on race, color, religion, sex, sexual orientation, gender identity and expression, national origin, age, disability, political affiliation or other characteristics protected by law.

Our Mission

GE Healthcare Imaging Engineering Technology is a leading provider of medical imaging systems, services, and software solutions. Our mission is to improve healthcare by providing products, services, and software solutions that transform clinical, business and research processes around the world. Our mission is to improve healthcare by providing products, services, and software solutions that transform clinical, business and research processes around the world.

Job Description

About the Lead Systems Engineer, MR Safety role

The Lead Systems Engineer, MR Safety works closely with cross-functional teams to design and establish system requirements for safety compliance, leads work on advanced system risk management strategy, plans, and traceability with safety limits and standards. This role requires a good understanding of the principles of MR safety, patient safety concerns, regulations, standards, product technology, and intellectual property. GE Healthcare as well as our competitors. Requires internal and external communication and understanding of product performance and relevance. Some judgment may be required but this is typically with guidance.

Job Description

Roles and Responsibilities

1. Provide leadership for cross-functional software, hardware, and application investigation of system design issues.
2. Make use of knowledge of software tools for analysis, simulation, and modeling.
3. Develop product risk management strategy, risk management plan and traceability for Cause Mitigation Table (CMT). Future Use and New Feature Analysis (PUFA), Design and Update Product FMEA for hazards, causes, occurrences and FMEA, as needed.
4. Work closely with design engineering teams, regulatory teams, complaint handling teams, test system designers, medical device, sales teams and field service personnel to define system requirements for safety compliance. Risk flows down to subsystem engineering teams.
5. Perform safety modeling and simulations to define safety limits in product design and architecture.
6. Work across functions and teams boundaries to help define design, and implement safety engineering tools for the next generation of MR products.
7. Be responsive and support system safety design reviews as needed to support compliance in accordance with guidelines in hardware and mechanical development using electromagnetic field, electromagnetics compatibility, digital and RF design theory.

Required Qualifications

1. Master's degree with 5 years relevant work experience or (Ph.D degree) in Engineering or Life Sciences: Biomedical Physics, or closely related field.
2. Strong understanding of MR physics and imaging/signal processing fundamentals.
3. Strong understanding of MR and other medical imaging systems.
4. Knowledge and understanding of SAR and PNS certifiable limits in product design and architecture.
5. Demonstrated ability to pursue tasks to completion.
6. Work across functions and teams boundaries to help define design, and implement safety engineering tools for the next generation of MR products.
7. Develop product risk management strategy, risk management plan and traceability for Cause Mitigation Table (CMT), Future Use and New Feature Analysis (PUFA), Design and Update Product FMEA for hazards, causes, occurrences and FMEA, as needed.

Additional Information

GE offers a great work environment, professional development, challenging careers, and competitive compensations. It is an Equal Opportunity Employer. Employment decisions are made without regard to race, color, religion, national or ethnic origin, sex, sexual orientation, gender identity or expression, age, disability, protected veteran status or any other characteristic protected by law.

Application Process:

1. Apply online and submit your resume, apply in accordance with guidelines in hardware and mechanical development using electromagnetic field, electromagnetics compatibility, digital and RF design theory.
2. Provide leadership for cross-functional (software/hardware/coils/applications) investigation of system design issues.
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Required Qualifications

1. Master's degree with 5 years relevant work experience or (Ph.D degree) in Engineering or Life Sciences: Biomedical Physics, or closely related field.
2. Strong understanding of MR physics and imaging/signal processing fundamentals.
3. Strong understanding of MR and other medical imaging systems. Many elements and concepts have been designed and developed to ensure the safety of MRI systems and the people who use them. The lead systems engineer must ensure that these elements and concepts work together to ensure safe operation. This role requires good understanding of the principles of MR safety, patient safety concerns, regulations, standards, product technology, and intellectual property. GE Healthcare as well as our competitors. Requires internal and external communication and understanding of product performance and relevance. Some judgment may be required but this is typically with guidance.

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