

Structural Engineer: Sr. Principal Structural Engineer

Analyzes, researches and develops structural engineering specifications involving metals and non-metallic or composite structural materials for product design. Develops specifications for operation of product to include structural, mechanical, hydraulic, electrical, power plant, armament, heating and ventilating equipment and maintenance designs. Analyzes damage tolerance, durability, design allowables and structural modeling. Specific structural engineering specialties may include dynamics and loads, stability and stress fatigue and thermal analysis. Tools utilized may include CATIA, IDEAS, ProEngineer and a variety of software applications.

Discretion/Latitude

Works under consultative direction toward predetermined long-range goals and objectives. Assignments are often self-initiated. Determines and pursues courses of action necessary to obtain desired results. Work checked through consultation and agreement with others rather than by formal review of superior.

Knowledge, Skills, & Abilities

Applies advanced technical principles, theories and concepts. Contributes to the development of new principles and concepts. Widely recognized for achievements, technical expertise and meritorious standing within the professional field. Identifies, analyzes and develops new business opportunities. Establishes customer contacts, conducts research and analysis into future plans and needs, assists with the development of specifications, develops proposals, and delivers marketing presentations.

Problem Solving

Works on unusually complex technical problems and provide solutions that are highly innovative and ingenious.

Impact

Develops advanced technological ideas and guides their development into a final product. Erroneous decisions or recommendations would typically result in failure to achieve critical organizational objectives and affect the image of the organization's technological capability. Functions in a program leadership role. Plays a key role in implementing programs/projects and makes significant contributions to department goals and overall functional strategic planning efforts.

Liason

Serves as organization spokesperson on advanced projects and/or programs. Acts as advisor to management and customers on advanced technical research studies and applications. Often instrumental in attracting and obtaining major new company business.

Minimum Education and Experience

15+ years with a BS in designated Engineering or a related field. Employees usually have an advanced degree in their field of specialization.